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The Impact of Service Providers' Emotional Displays on Service Evaluation: Evidence of Emotional Contagion

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A Thesis

in

The Department

of

Marketing

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In memory of my father, Dr. Sam

ABSTRACT

The Impact of Service Providers' Emotional Displays on Service Evaluation: Evidence of Emotional Contagion

Marc A. Tomiuk, Ph. D.
Concordia University, 2001

Practitioner lore has long suggested that service provider emotional displays have a significant impact on service evaluation. No empirical investigation of this relationship was found in the marketing literature. The scholarly evidence which points to the validity of this belief is found in the area of management. However, this evidence often appears anecdotal, speculative, and indirect. It usually stems from qualitative observations of the buyer-seller dyad and exploratory forms of research. In addition, these studies typically focus on the employee and not on the consumer. The present work begins with an exhaustive and comparative review of the emotions literature in psychology and in sociology. In Chapter Six, a model of the *emotion system of the service encounter* is developed. In part, it represents a conceptualization and a substantial and substantive extension of Hochschild's (1983a) work on *emotional labor*. The model not only accounts for the emotional reactions of consumers to the affective displays of service providers but provides an interdisciplinary perspective on emotion. Accordingly, we draw on elements from cognitive and somatic perspectives in psychology, Hochschild's (1983a) interactional theory, the views of other social constructivists, purist sociological perspectives, and on perspectives from communication studies in an attempt to account for the multilevel emotional dynamics which occur in the service encounter. It becomes evident that emotions are not simply intrapersonal states but that they are also social or interpersonal phenomena. It is also stressed that the consumer's and service provider's emotion processes involve different determinants. Importantly, it is suggested that cognitive appraisal theories do not provide the only general mechanism which may account for consumer emotion in the service encounter. Alternatively, *primitive emotional contagion* rests on somatic theories of emotion. Its underlying mechanism is essentially pre-attentive (unconscious) and thus does not imply the type of mental calculus which is suggested by appraisal theorists as a determinant of emotion. At a theoretical level, primitive emotional contagion appears to better account for emotion in a dynamic and interactive manner than do cognitive theories which essentially represent stimulus-response models. It also represents a compelling explanation for mutual entrainment, synchrony, rapport, and matched emotional states in interaction. On the other hand, cognitive appraisal theories appear to provide a mechanism for consumer emotion after the occurrence of failure in a component of service. Next, an experimental study is conducted to test a variety of hypotheses based on the proposed conceptual model and the services evaluation literature. Results indicate that the interaction between the valence of a service provider's emotional displays and the social context of these displays does have a significant effect on various evaluation factors including service quality dimensions, satisfaction, and behavioral intent. Specifically, appropriate or normative displays of emotion are found to

lead to positive evaluations whereas inappropriate emotional displays have a detrimental impact on evaluation. On the other hand, the main effects (but not the interaction) have a significant impact on consumer emotion. Findings also point to two potentially distinct and perhaps concurrent mechanisms to consumer emotion. The predominance of one or the other appears to depend on whether or not some form of failure occurs. Finally, LISREL estimation of two theoretically-grounded models suggests that eventful encounters characterized by failure in emotional labor involve an evaluation sequence which closely reflects that proposed in Cronin and Taylor (1992). Emotion does not seem to play a role in this sequence. On the other hand, uneventful encounters appear to involve an evaluation sequence which is heavily affect-laden.

RÉSUMÉ

L'impact des expressions émotionnelles des employés de service sur l'évaluation des services: Indications d'effets liés à la contagion émotionnelle

Marc A. Tomiuk, Ph. D.
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Une croyance fortement ancrée et répandue dans le milieu des affaires prétend que les expressions émotionnelles des employés de service ont un impact sur l'évaluation des services. Cependant, aucune étude marketing traitant systématiquement de ce sujet a été identifiée. Les études management renforçant cette croyance dévoilent des résultats qui demeurent spéculatifs et plutôt indirects. Ces études sont basées sur des méthodes qualitatives ou des approches quantitatives à caractère exploratoire. De plus, elles mettent l'accent sur l'employé et non sur le consommateur. Le présent travail débute par une revue exhaustive et comparative des littératures en psychologie et en sociologie traitant des émotions. Au Chapitre Six, un modèle conceptuel est développé qui décrit le *système émotionnel* de l'interaction dans les services. Ce modèle représente une conceptualisation et une extension substantielle et importante de ce qui est proposé dans Hochschild (1983a) sur le *travail émotionnel* (en anglais: *emotional labor*). Il est basé sur une perspective interdisciplinaire des émotions. Celle-ci est à la fois fondée sur des éléments de théories cognitives et somatiques en psychologie, de la théorie de Hochschild (1983a), d'autres approches constructivistes, des théories à caractère purement sociologique ainsi que sur des perspectives développées dans le domaine de la communication. L'approche interdisciplinaire proposée dans le modèle est à la fois nécessaire et suffisante pour expliquer de façon adéquate la nature complexe de la dynamique affective qui se manifeste dans l'interaction de service. Cette complexité réside en partie dans le fait que les émotions sont des phénomènes à la fois intrapersonnels et interpersonnels ainsi que dans le fait que les déterminants de l'état affectif du consommateur et de celui de l'employé sont probablement différents. De façon importante, il est suggéré que les populaires théories cognitives des émotions ne représentent pas le seul mécanisme qui explique une réaction émotionnelle chez le consommateur lors d'une interaction avec un employé de service. Ces théories semblent expliquer de façon adéquate l'apparition d'émotions chez le consommateur seulement suite à l'évaluation d'un problème lié au service. Alternativement, des réactions basées sur la *contagion émotionnelle primitive* sont possibles sinon probables. Ces réactions sont ancrées dans des processus somatiques et ne requièrent pas une attention consciente de la part de l'observateur. Au niveau théorique, ce mécanisme confère au modèle proposé un élément qui permet d'adresser les émotions d'une manière dynamique et interactive. Il représente aussi une explication adéquate pour des émotions qui apparaissent dans une interaction de service quand celle-ci est basée sur un rapport interpersonnel normatif et que des états affectifs semblables et synchroniques sont ressentis par les participants. Par la suite, une étude expérimentale a été exécutée dans le but d'adresser plusieurs des hypothèses suggérées par le modèle conceptuel et par la littérature traitant de l'évaluation des services. Les résultats

démontrent que l'interaction de la valence des expressions émotionnelles de l'employé et du contexte social de ces expressions a un impact significatif sur des facteurs liés à l'évaluation des services tels que la qualité, la satisfaction et l'intention future. Plus précisément, les expressions émotionnelles jugées comme étant appropriées ou normatives contribuent à des évaluations positives tandis que des expressions inappropriées ont un impact défavorable sur l'évaluation. Par contre, les effets principaux de ces variables (et non leur interaction) déterminent les émotions du consommateur. En somme, les résultats indiquent que deux mécanismes générateurs d'émotions sont possiblement activés lors de l'interaction dans le contexte des services et qu'un prédomine dépendamment de si un problème survient ou pas durant l'interaction. Finalement, l'estimation par le programme LISREL de deux modèles théoriques semble confirmer qu'un processus cognitif opère quand un événement négatif survient et fait intervenir une complexité cognitive ainsi qu'une évaluation consciente. Dans ces circonstances, la séquence d'évaluation semble être purement cognitive et rejoint celle proposée dans Cronin et Taylor (1992). Par contre, lors d'interactions sans événements néfastes, l'émotion du consommateur (attribuée ici à la contagion émotionnelle) intervient dans le processus d'évaluation. Ce processus devient alors affectif plutôt que cognitif.

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In 1993, Professor Blake Ashforth provided me with a file containing much literature on emotional labor. I made copies of most articles rather unwittingly. At first, this management literature was rather poorly combined with articles in services marketing and served to produce a somewhat sketchy paper on emotional displays and service quality in a M. Sc. seminar in Consumer Behavior. Later, a more refined perspective was presented in a final paper in a Consumer Behavior seminar during my Ph. D. course work. The file Professor Ashforth lent me also included two or three photocopies of original manuscripts on emotional contagion by Hatfield and her associates. For some time, I did not see a direct connection between service providers' emotional displays and the possibility of emotional contagion on the part of consumers. Nevertheless, the thought and the intention loomed. Quite obviously, that file has carried me a long way: it spurred my interest in emotional labor, incited me to look into its impact on consumers, and ultimately provided me with a rather unique topic for my dissertation. My most profound gratitude and appreciation are extended to Professor Ashforth for his direct and indirect involvement in this dissertation, and for his contributions to my education as a researcher. Professor Ashforth has been enduringly giving, supportive, patient, insightful, and understanding.

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INTRODUCTION

Emotion remains "[a] fundamental, potent, and ubiquitous aspect of social life" and is also "one of the most consequential outcomes of interaction, framing the interpretation of messages, one's view of self and other, and one's understanding of the relationship that gave rise to the feeling" (Metts & Bowers, 1994, p. 508). Service encounters are primarily social encounters (Czepiel, 1990a) and thus provide a context for the involvement and occurrence of emotion. Prescribed emotional expressions on the job remain a part of daily routine activities and underlie the behavioral repertoires of service agents (Goleman, 1995; Hochschild, 1983a; Mars & Nicod, 1984; Parkinson, 1991; Rafaeli, 1989a; Rafaeli & Sutton, 1987, 1989, 1990, 1991; Spradley & Mann, 1975). Many occupations in the service industry require expressions of positive affect or good cheer (e.g., Rafaeli & Sutton, 1989; Sutton & Rafaeli, 1988, 1990). However, some occupations such as those of bill collectors, funeral home employees, and those which involve death telling require that negative affect or unpleasant emotions (e.g., sadness, grief, disgust, or anger) be expressed (Clark & LaBeff, 1982; Rafaeli & Sutton, 1991; Sutton, 1991). This research has more often than not focused on the expressive component of emotion and has generally relied on a dramaturgical (Goffman, 1959, 1967) or an impression management (DePaulo, 1992; Leary, 1994; Snyder, 1979, 1987) perspective on interaction. In her seminal work, Hochschild (1983a) suggested that emotions on the job are not only merely expressed dramaturgically but are also felt. She found that airline employees were expected, asked, and often trained to adjust their true feelings in accordance with *feeling rules*; and to subsequently display authentic and appropriate emotions to customers. In this perspective, customer-contact employees emerge as actors who engage in *emotional labor* or the strategic management of feeling on the job (Parkinson, 1997).

The management literature whose focus is on emotional labor is replete with observations which generally intimate that emotional displays are crucial to proper (expected) service delivery (e.g., Mars & Nicod, 1984; Parkinson, 1991; Rafaeli, 1989a, 1993; Rafaeli & Sutton, 1987, 1989, 1990, 1991) and this literature often suggests the importance of service providers' emotional displays to service evaluation factors. Accordingly, Ashforth and Humphrey (1993) hold that prior work in the field "indicates that

the manner in which one displays feelings has a strong impact on the quality of service transactions, the attractiveness of the interpersonal climate, and the experience of emotion itself" (p. 88). Similarly, Rafaeli (1989a) states that emotional expression is "central to roles that entail serving others" (p. 385). However, many studies of emotional labor in the area of management have relied on participant-observation methodologies and their efforts at relating emotional labor factors to the performance of firms amount to exploratory work and even speculation. In particular, much of the work of Rafaeli and Sutton reflects these approaches. Furthermore, their use of the term *service quality* seems to carry various unspecified meanings and therefore appears to be used quite loosely and broadly. In one instance, the relationship between emotional displays and service quality was simply inferred from changes in sales levels (see Sutton & Rafaeli, 1988).

On the other hand, service evaluation factors have involved much conceptual and empirical development in the area of services marketing (e.g., Bitner, 1990; Boulding, Kalra, Staelin, & Zeithaml, 1993; Gummesson, 1991; Grönroos, 1990; Oliver, 1996; Parasuranam et al., 1985, 1988, 1991, 1994a, b). These efforts have led to adequate operationalizations and have therefore permitted the study of the effects of various independent variables on components of service quality and satisfaction. However, the services marketing literature has paid almost no attention to the role of emotional displays *per se* in the service encounter and to their consequences on service evaluation factors. Price, Arnould, and Tierney (1995) recently proposed that *affective* or *emotional content* is a neglected dimension of the service encounter and that it has a role in shaping "service provider performance and the links among provider performance, affective response, and satisfaction" (p. 83). In fact, they add that this dimension has received "no systematic attention in the marketing literature" (p. 83). The downplay of emotion in the area of services marketing is also stressed in Oliver (1994). More generally, Bagozzi, Gopinath, and Nyer (1999) suggest that in comparison to cognitive and conative processes, little is known about "the role of emotions in marketing behavior" (p. 184; see also Cohen & Areni, 1991).

Despite a lack of formal and direct attention given to emotional displays or markers of emotion in the marketing services literature, their importance is nonetheless often alluded

to or indirectly suggested in discussions of the service encounter. This is evident in research on critical incidents in service encounters (e.g., Bitner, Booms, & Mohr, 1994; Bitner, Booms, & Tetreault, 1990). This is also apparent in discussions of factors which are stressed in the services evaluation literature and which are potentially related to perceptions of displayed affect in the form of emotional labor. In some instances these concepts appear clearly related but more specific than the notion of *emotional labor*. For example, the delivery of *empathy* (Parasuranam, Zeithaml, & Berry, 1988) clearly requires emotional labor but involves a fairly limited domain. In other instances, related conceptualizations appear to involve a wider domain than that of *emotional labor*. For instance, Czepiel, Solomon, Surprenant, and Gutman (1985) have emphasized the importance of careful attention to the emotional behavior of service employees but have subsumed this factor under a broader construct which they have labeled *climate for service*. Similarly, *personalization* (Mittal & Lassar, 1996; Surprenant & Solomon, 1987) and *courtesy* (Parasuranam, Zeithaml, & Berry, 1985) have also been proposed as important aspects of 'good service.' Personalization has been found to be closely associated to emotional labor (Hochschild, 1983a). Perceptions of courtesy also appear to be related to nonverbal emotional displays on the part of the provider (Zabava Ford, 1995). These and other factors which underlie the process-related aspects of service delivery have been presented as determinants of *perceived service quality* (e.g., Gummesson, 1993; Grönroos, 1990, 1993; Lehtinen & Lehtinen, 1982; Parasuranam, Zeithaml, & Berry, 1985; 1988, 1994a, b; Swartz & Brown, 1989) and/or *felt level of satisfaction* with a service (e.g., Anderson & Sullivan, 1995; Bearden & Teel, 1983; Churchill & Surprenant, 1982; Oliver, 1993a, b, 1994, 1996; Tse & Wilton, 1988).

The main thrust of this dissertation is that emotional displays on the part of the service provider carry an impact on various service evaluation factors and that consumer emotion intervenes in this process. On one level, this work represents an effort at bridging the gap between management and marketing perspectives on the service encounter. Researchers in the areas of marketing and management generally agree on the importance of buyer-seller interactions in the service encounter. However, they differ with respect to the types of dependent variables they investigate. Nevertheless, to our knowledge, none has

presented a formal and precise statement of the relation between service providers' emotional displays and customers' affective reactions and service evaluations and none has empirically tested a variety of possible relationships that are suggested by past and current research in the field of emotion and in services marketing. Accordingly, this effort is also a step toward conceptually grounding and empirically testing often anecdotal and indirect observations found in qualitative management studies which generally suggest the relevance of emotional displays to service evaluation.

At another level, this work acknowledges the many possible types of intrapersonal and interpersonal determinants of emotion in the service encounter. The field of emotion has involved a variety of differing perspectives (Cornelius, 1996; Kemper, 1991, 1993; Metts & Bowers, 1994). A sociological perspective on emotion underlies many if not most studies of emotional expression on the job. The treatment of emotion by sociologists has led to investigations of how expressions of emotion are guided by social structure and culturally-based rules and norms (Kemper, 1991, 1993). A reliance on Goffman's (1959, 1967) dramaturgical metaphor is clearly apparent in most studies of emotional labor and many have focused on expressive behaviors rather than internal feeling states (e.g., Rafaeli, 1989a; Rafaeli & Sutton, 1987, 1989). However, most laymen would agree that "the term 'emotion' refers to subjective feelings" (Leventhal, 1984, p. 271) and that the expression of feelings involves more than adherence to norms or other factors which underlie impression management such as the intention to deceive.

Unlike sociologists who emphasize the role of the socius in explaining emotion, many psychologists view emotion as an intrapersonal syndrome or as a phenomenon that involves multiple components which include prior cognition, subjective feeling, expressive reactions, physiological reactions (Scherer, 1984a), and regulation (Mesquita & Fridja, 1992). Moreover, psychologists have attempted to classify, simulate, control, manipulate, and measure these aspects of emotion (Cornelius, 1996; Parrott & Hertel, 1999). A careful reading of the psychological literature on emotion thus provides ways by which emotions can be studied systematically in an empirical and experimental fashion.

A fairly recent trend in psychology has acknowledged the importance of sociocultural aspects in emotion and has thus involved the incorporation of notions from perspectives on emotion that stem from various other areas of inquiry which include anthropology, sociology, and communication studies. In these perspectives, emotions are embedded in a wider social context (e.g., Averill, 1980a, b, c, 1982; Buck, 1984, 1988a, 1991a; Chovil, 1991; Fridlund, 1992a, 1994; Kitayama & Markus, 1994; Mandler, 1990; Manstead, 1991; Miller & Leary, 1992; Parkinson, 1995, 1996; Zajonc, 1998). They do not emerge as purely intrapersonal nor as purely social (interpersonal) phenomena. Rather, they are viewed as involving both levels of functioning. This middle-ground approach is perhaps best acknowledged in Parkinson (1996) where it is argued that a social psychological perspective on emotion appears to resolve many problems with purist psychological and purist sociological accounts of emotion in interaction. As a whole, the field of emotion, through an integration of perspectives and findings, is emerging as one that is clearly headed toward interdisciplinarity.

Marketing's flirtations with affect are quite recent (Cohen & Areni, 1991; Oliver, 1994; Price, Arnould, & Tierney, 1995) and reflect compartmentalization rather than interdisciplinarity. Reviews of the literature in the area have tended to be limited to what are perceived as useful and applicable approaches in psychology and they have tended to reflect the dominant trend or theory within psychology in a given period. For instance, Bagozzi et al. (1999) have recently provided such a review. Although it is presented as a review of emotion, it quickly becomes evident that it is rather incomplete and skewed because of its emphasis on a variety of theories that are mainly cognitive. Appraisal theories are the dominant theories of emotion in contemporary psychology. However, they represent but one of many valid approaches to the study of emotion within the field (Cornelius, 1996). A strict appraisal theory perspective is insufficient to account for every occasion of emotion and especially the episodic and dynamic nature of emotion in interaction.

The perspective proposed herein emerges as atypical of past and much current work in marketing. We do not try to fit emotion within existing cognitive frameworks (see Cohen & Areni, 1991) but rather begin our conceptualization of the service encounter with emotion as an essential building block. It is evident, that cognition can play a role in consumer

responses to a service encounter. However, the role of cognitive appraisal in emotion appears especially suited to situations which call for increased cognitive complexity such as those characterized by failure, unexpectedness, or personal relevance/importance (e.g., Lazarus, 1991a; Weiner, 1986). Appraisal theories therefore appear generally inadequate for explaining emotional reactions during smooth or "uneventful" interactions. It is argued herein that *primitive emotional contagion* (Hatfield, Cacioppo, & Rapson, 1992a, 1994) and emotional reactions due to *preparedness* (Dimberg & Öhman, 1996; Lundquist & Dimberg, 1995; Seligman, 1970) can occur during the service encounter. Spontaneous expressions of emotion appear to facilitate the occurrence of these mechanisms of emotion (Buck, 1991b; Dimberg, 1988a; Hatfield et al., 1994). Both processes involve pre-attentive or unconscious functioning (Dimberg, 1988a, 1990a, 1994, 1995; Dimberg & Öhman, 1996; Hatfield et al., 1994; Öhman, 1999) and hence, automatic rather than controlled processing (Bargh, 1994, 1996, 1997; Dimberg, 1991; Schneider, Dumais, & Schiffrin, 1984). This, in turn, implies that the role of cognitive mediation in these processes appears minimized (Hatfield et al., 1994; Öhman, 1999).

Emotional contagion remains a social phenomenon and implies the direct spread of affect by simple contact or mere exposure (Marsden, 1998). It typically results in matched emotional states (Andersen & Guerrero, 1998) and provides a compelling explanation for mutual entrainment and rapport during interaction (Parkinson, 1996). The underlying mechanism of primitive emotional contagion is likely to be based on somatic processes (see Hatfield et al., 1994; Hsee, Hatfield, & Chemtob, 1992). Alternatively, preparedness is rooted in an evolutionary perspective on emotion (Darwin, 1896; Dimberg, 1990a; Seligman, 1970). It is presented as a hardwired or preprogrammed emotional response to eliciting stimuli (Dimberg & Öhman, 1996). Unlike contagion, the occurrence of preparedness seems to be limited to responses to expressions of anger and fear in particular (Smith, McHugo, & Kappas, 1996).

The main question which drove this work was: What is the impact of service providers' emotional displays on consumers of services? An answer to this rather general question required answers to many other and more specific questions. In particular, it was

deemed necessary to investigate the very nature of emotion with a focus on its expressive (behavioral), subjective, and physiological response components (Öhman, 1986). Although we took our lead from Hochschild's (1983a) interactional theory of emotion, it quickly became apparent that Hochschild's (1983a) propositions needed to be broadened; and this, despite their interdisciplinarity and conceptual appeal. Not only is Hochschild's (1983a) focus limited to the service provider but the necessity of adopting a broader perspective appeared inevitable especially when it became evident that the antecedents and the salient features of emotion appeared in all likelihood to be different for each participant in the service encounter. A more complete account would not only seek to explain how the emotional expressions of the service provider impact the emotions of the consumer but would also address the interactional and dynamic nature of the encounter. This called for a return to basic and purist accounts of emotion. A variety of perspectives on emotion other than Hochschild's (1979, 1983a) were consequently examined. They included those rooted in cognitive, somatic, sociological, and communication theory perspectives. This examination was rather exhaustive. Various aspects from these perspectives were subsequently integrated with Hochschild's (1983a) general propositions to specify a model of the *emotion system of the service encounter*. This model provides a theoretical account of how the four conceptually distinct categories of emotional displays by service providers suggested by our reading of Hochschild (1983a) could lead to emotional reactions in the consumer via three distinct processes: (a) cognitive appraisal, (b) primitive emotional contagion, and (c) preparedness. These emotion mechanisms involve different assumptions about the very nature of emotion and an unequal power in explaining the dynamics of emotion in interaction. Because of its integrative character, the proposed model both builds upon and differs from current perspectives on emotion in interaction.

In our search, the dynamic nature of emotion in interaction soon appeared closely related to various regulatory mechanisms. The question posed at this point was: How are emotions regulated? The answer to this question led to a focus on the regulation of internal and expressive components of emotion which, in turn, resulted in two deviations from Hochschild's (1983a) propositions. Firstly, Hochschild (1983a) emphasized only one form

of internal regulation which was based on *feeling rules*. Alternatively, the role of bodily feedback (especially from the face) in regulation is suggested as primordial in our conceptual work. The incorporation of findings on bodily feedback in a perspective on emotion in the service encounter enables many theoretical refinements. At the intrapersonal level, facial feedback can impact internal feeling states (James, 1884, 1890; McIntosh, 1996). It therefore provides for an alternate regulation mechanism to that specified in Hochschild (1979, 1983a). At the interpersonal level, various forms of feedback (i.e., facial, postural, vocal, etc.) allow for primitive emotional contagion to occur (Hatfield et al., 1994). In turn, primitive emotional contagion potentiates an exchange where rapport and mutual entrainment (Bernieri, 1988; Bernieri, Reznick, & Rosenthal, 1988; Hatfield et al., 1994; Warner, 1988) are not based on conscious mediation but rather on processes which are unconscious (pre-attentive), direct, and automatic. In this perspective, facial expressions of emotion appear to not only involve a communicative function whereby the information in expressions can be decoded and encoded consciously but also one based on a more *spontaneous* form of communication (Buck, 1984, 1988a). Accordingly, Smith et al. (1996) hold that: "[f]acial communication does not necessarily represent a conceptual form of communication, like spoken or written language, in which symbolic information is transferred from one individual to another through semantically based cognitive operations" (p. 243). They add that: "[i]nstead, the information conveyed through facial expression is often communicated in a manner that, at times, may approach the direct transfer of subjective emotional feelings"(p. 243). This implies that one's internal feeling state, when determined by the mechanism of primitive emotional contagion and if monitored, may serve as a direct source of information with respect to how the other feels (Hatfield et al., 1994; Jung, 1968). Hence, the proposed conceptual model invites a less consciously mediated perspective on the notion of *emotion as information* (cf. Booth-Butterfield & Booth-Butterfield, 1990; Buck, 1984, 1991b; Hatfield et al., 1994).

Secondly, Hochschild (1983a) did not emphasize a component-based perspective on emotional responses but rather implicitly presumed a one-to-one correspondence between the subjective feeling state and behavioral (expressive) components of emotion. In other

words, Hochschild (1983a) implied that the regulation of internal feeling states would automatically result in a corresponding expression. Alternatively, we did not presume that emotion response components (Öhman, 1986) are perfectly correlated. Much evidence indicates that they are not but that they do covary to some extent (e.g., Dimberg, 1990a; Lang1978, 1988; Leventhal & Scherer, 1987; Lewicki, 1986; MacLean,1975; Parrott & Hertel, 1999). In adopting this perspective, we not only sought to bring our treatment of emotion up to par with recent findings but found that it allowed for a discourse on emotion which was more elaborate and more versatile than that which is permitted by the tenets of Hochschild's (1979, 1983a) interactional theory.

In sum, by stressing interpersonal and intrapersonal forms of feedback, emotion regulation in a multicomponent perspective, and conscious and unconscious (pre-attentive) processes, the proposed conceptual model of the *emotion system of the service encounter* does not only emerge as interdisciplinary but also as multilevel (intrapersonal and interpersonal) in its dialectics. As such, it goes much further in terms of dynamics than the simplistic stimulus-response formulation which underlies all appraisal theories of emotion (see Scherer, 1993) and many models of interpersonal communication (see Buck, 1984, 1991b). The proposed model also represents a much more complex characterization of the service encounter than that proposed in Hochschild (1983a). In fact, it not only conceptualizes her work but also extends it dramatically by including the consumer and by providing a fairly exhaustive and integrated account of emotion in interaction.

Next, we focused our attention on service evaluation factors. Two important questions that required attention were: (a) How do consumers evaluate services? and (2) How do emotions intervene in the evaluation of services? A fairly thorough overview of the service quality and satisfaction literatures was undertaken. Cognition has played a primordial role in the service evaluation literature. However, the role of complex cognitive factors (e.g., expectancy disconfirmation) which suggest attentive (conscious) processing appears to be played down in recent investigations into the mental calculus and underlying factors of service quality judgments (Cronin & Taylor, 1992; Oliver, 1996). Moreover, affect has clearly been shown to impact satisfaction (Westbrook, 1987; Westbrook & Oliver, 1991)

whose presumed antecedents have often rested in one cognitive process or another (e.g., expectancy disconfirmation, equity judgments, etc.) (see Oliver, 1996). These findings generally suggest a reduced role of the cognitive factors (e.g., expectancy disconfirmation) that are typically deemed so important in service evaluation at the conceptual and theoretical levels (see Oliver, 1996; Taylor, 1995). The potential occurrence of a process such as emotional contagion in the service encounter may serve to demonstrate this further.

Because emotional contagion represents a direct and pre-attentive (unconscious) process to emotion in interaction, feelings thus generated in the consumer may subsequently affect service evaluation factors (especially satisfaction). If so, the suggested sequence potentially reverses in some situations the causal order of variables presumed in the service evaluation literature. This sequence holds that service quality evaluations (i.e., cognitive operations based on expectancy disconfirmation) carry an impact on overall satisfaction (i.e., an affect-laden construct) (see Cronin & Taylor, 1992; Oliver, 1993a, 1994, 1996; Westbrook & Oliver, 1991). If emotional contagion does occur in the service encounter, it not only provides an alternate (or concurrent) mechanism to cognition for the generation of feelings (Lazarus, 1984a; 1991a; Scherer, 1988a, b, c, 1993; Smith & Ellsworth, 1985, 1987) in the consumer during the service encounter but also for a process whereby emotion and not cognition may be a primordial determinant of service evaluation. Such a perspective is somewhat consistent with that of Zajonc (1980, 1984) who suggested that very simple and pre-attentive judgments can lead to an emotional reaction unmediated by cognition and argued for the primacy of emotion rather than cognition. Hence, the proposed perspective represents a substantial and clear deviation from the dominant cognitive perspective on emotion and consumption (see Cohen & Areni, 1991; Bagozzi et al., 1999) and from the tenets of the cognitive revolution (Gray, 1999) which generally underlie a perhaps stubborn reliance on attentive (conscious) processes in proposed models of consumer behavior.

This dissertation is divided into eleven chapters. Because of the often subtle and not so subtle variations among theories of emotion in psychology and the number of issues which have been raised and addressed in this literature, Chapters One, Three, and Four are relatively longer than others. Chapter One discusses definitions of emotions and provides a

comparative overview of theories of emotion. Chapter Three focuses on emotional expression, its verbal and nonverbal indicators, and its presumed universality. Chapter Four looks into the classification of emotions and their measurement. The length of these chapters only attests to the breadth, scope, and complexity involved in the study of emotion in psychology. Published studies are usually limited in focus to a particular issue and thus seldom provide the big picture on emotion. As a result, these chapters are rather exhaustive and represent and reflect a learning process which was largely emergent on our part. This process was quite tedious and based on the exploration and classification of an enormous amount of literature. During the production of these chapters, it became rather evident that researchers in marketing have only scratched the surface of emotion and borrowed that which they perceive to be useful and that which can be easily "blended onto" preexisting cognitive frameworks (see Cohen & Areni, 1991) without diminishing or displacing their sovereignty. This realization only provided greater impetus to complete this sizable endeavor.

Chapter Two provides a review of sociological perspectives on emotion. Sociological perspectives have generally and quite typically been utilized to describe the interactions which characterize the service encounter (e.g., Deighton, 1994; Grove, Fiske, & Bitner,1992; Solomon, Surprenant, Czepiel, & Gutman, 1985). However, without reference to psychology whose focus is on intrapersonal phenomena, sociological approaches with their emphasis on interpersonal, structural, and normative factors in the service encounter, seem rather sterile, insufficient, and difficult to operationalize in an experimental setting. On the other hand, a purely psychological (intrapersonal) perspective on the service encounter is not tenable because the service encounter remains an inherently interpersonal encounter. Accordingly, we draw heavily on both perspectives in subsequent chapters.

Chapter Five examines the literature on emotional contagion. It represents a topic which has only recently been addressed in mainstream psychological research (Marsden, 1998). Chapter Six provides an examination of the service encounter and discusses the relevance and fit of the psychological and sociological perspectives on emotion to service encounters. Subsequently, we specify an interdisciplinary, multilevel, and dynamic model of the *emotion system* which underlies service provider-consumer interaction in the service

encounter. Emotional contagion is positioned within the model as one of three possible mechanisms to consumer emotion during exposure to the emotional displays of a service provider. Chapter Seven looks into cognitive representations in the consumer of the provider's displays. Impression formation and attribution are discussed. An impression formation model of the emotional behavior of the service provider is suggested. The spontaneous and ubiquitous nature of dispositional inferences (Newman, 1991) implies that impression formation does occur in the service encounter and that it can impact on the nature of this interaction (Winter & Uleman, 1984). This view is expanded in a subsequent section where Burgoon's (1993; Burgoon & Hale, 1988; Burgoon & Walther, 1990) communication theory perspective is used to specify the proposed impression formation paradigm. Chapter Eight provides an overview of service evaluation factors and addresses the issues which surround the causal sequence between service quality and satisfaction. We also position consumer emotion within this process. Next, one experimental study is proposed. Chapter Nine involves a conceptual development and formal statements of hypotheses. In Chapter Ten, a methodological overview, results, and a discussion are presented. The dissertation is concluded in Chapter Eleven.

CHAPTER 1

PSYCHOLOGICAL PERSPECTIVES ON EMOTION

1.1 Definitions of Emotion

Emotion is a phenomenon that has been studied within various scholarly disciplines which include: psychology[1] (see Cornelius, 1996), sociology (e.g., Kemper, 1978), communication studies (e.g., Booth-Butterfield & Booth-Butterfield, 1990; Buck, 1984), anthropology (e.g., Mead, 1975), biology (e.g., Darwin, 1872; Kagan, Reznick, & Snidman, 1988), physiology (e.g., Weiskrantz, 1956), neurophysiology (e.g., Rolls, 1981), neurobiology (e.g., LeDoux, 1986), philosophy (e.g., Lyons, 1999), ethology (e.g., Kraut & Johnson, 1979), management (e.g., Ashforth & Humphrey, 1993), and marketing (e.g., Westbrook & Oliver, 1991). This multiplicity of perspectives on emotion only attests to the complexity and ubiquity of the phenomenon. To contrast some of the various approaches to emotion, Kemper (1993) argues that:

> [i]n primacy of interest, disciplinary seemliness, and volume of empirical work, psychologists 'own' the topic of emotions. Yet, given the scope, span, and ramifications of emotion phenomena, other disciplines also legitimately explore affective life. Physiologists relate emotions to anatomical structures and processes; anthropologists link emotions to particular cultural logics and practices; historians view emotions of today in light of emotions in the past; ethologists seek what is phylogenetically given as well as distinctively human in emotions; and sociologists examine how emotions are released, interpreted, and expressed by virtue of the demands and circumstances of human membership in groups. (p. 41)

Philosophy is perhaps the oldest discipline involved in the field of emotion. Speculations about the structure, purpose, and the functioning of emotion along with its relation to *reason* can be traced back to the discourse of many classical Greek philosophers (see Sihvola & Engberg-Petersen, 1998). Many of the issues which characterize the field of

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[1] Psychology is a diverse field. Although psychologists generally view emotions as intrapersonal phenomena or as "things in themselves" (Doyle McCarthy, 1989, p. 51), some have provided a treatment of emotion that has involved overlap with other disciplines or areas of inquiry which include the cognitive sciences (e.g., Gray, 1999; Power & Brewin, 1991), physiology (e.g., Levenson, Ekman, & Friesen, 1990), anthropology, and sociology (e.g., Averill, 1980a, b, c; Russell, Fernandez-Dols, Manstead, & Wellenkamp, 1994; Zajonc, 1998). Thus, some psychologists emerge as interdisciplinarians in their treatment of emotion. As we shall see below, this further complicates attempts at categorizing perspectives on emotion.

emotion today are apparent in the writings of classical philosophers such as that of Aristotle (see Lyons, 1992, 1999; Zajonc, 1998). Divergent perspectives on what constitutes an emotion were prevalent since classical times (see Cooper, 1998; Sorabji, 1998). A general lack of consensus still characterizes the contemporary study of emotion. There is an ongoing debate in the literature about what underlies *emotion* and related terms (see Fridja, 1988; Izard, 1982, 1993; Kleinginna & Kleinginna, 1981; Lazarus, 1991a; Leeper, 1965; Leventhal, 1974; Parkinson, 1987; Plutchik, 1991; Zajonc, 1980, 1984, 1985, 1998). Some general elements or components of emotion on which many contemporary perspectives converge are put to the forefront in the two following definitions:

> *Emotion*: In the way psychologists use the term there is widespread agreement that it represents a complex state of diffuse physical changes, marked by strong feelings and accompanied by a behavioral impulse towards achieving a specific goal (Statt, 1998).

> *Emotion*: Differently described and explained by different psychologists, but all agree that it is a complex state of the organism, involving bodily changes of a widespread character - in breathing, pulse, gland secretion, etc. - and, on the mental side, a state of excitement and perturbation, marked by strong feeling, and usually an impulse towards a definite form of behavior. If the emotion is intense there is some disturbance of the intellectual functions, a measure of dissociation, and a tendency towards action of an ungraded or protopathic character. Beyond this description anything else would mean an entrance into the controversial field (Drever, 1952).

Despite the decades which separate these definitions, some overlap is evident. Both suggest that emotions have at least two aspects: a *psychic* component and a *physical* component (for a discussion of this most basic division, see Mandler, 1992). Specifically, both focus on what can be viewed as emotional responses which have been found to include: (a) behavioral, (c) physiological, and (c) internal feeling state or phenomenological components (Öhman, 1986). Nevertheless, both definitions are purposely broad and avoid reference to specificities that may be associated to a particular class of theories; and this, apparently so as to bypass rather than induce controversy.

As we shall see below, classes of theories of emotion differ in many respects. One area of discord has involved the antecedent processes which lead to the generation of emotion. Accordingly, numerous and more specific definitions of emotion than those found

above have been proposed. For instance, Kleinginna & Kleinginna (1981) examined ninety-two definitions which reflected varying and often divergent perspectives on emotion. Similarly, Plutchik (1980b) offered a review of twenty-eight definitions of emotion. He inevitably concluded that much inconsistency was apparent among them and that many failed to provide a clear notion of what constitutes an emotion. A rather small and nonexhaustive sample of definitions which underlie some contemporary and often-mentioned theories of emotion is presented below. Careful examination of these definitions inevitably leads to the realizations that they display a multitude of perspectives. For instance, Izard (1972) held that emotions are basic and that each emotion is "a complex process that has neurophysiological, motor-expressive, and phenomenological aspects" (p. 51). Moreover, each fundamental emotion was said to involve an innate program whose functioning was based on neurochemical activity which "produces patterned neuromuscular responses of the face and body and the feedback from these responses is transformed into conscious form" (p. 52). This view is typical of researchers who have advocated the notion of a small set of differently patterned basic or unitary emotions and who have stressed the biological and physiological bases of emotion (e.g., Ekman, 1992a, b, c). Alternatively, Ortony, Clore, and Collins (1988) take a view which emphasizes the role of antecedent cognitive factors in emotion. They state that emotions are "valenced reactions to events, agents, or objects, with their particular nature being determined by the way in which the eliciting situation is constructed" (p. 13). This definition is akin to many proposed definitions within the dominant cognitive perspective on emotions in psychology. Still another view is provided in Fridja (1986) whose perspective not only stresses the biological bases of emotion but also takes into account antecedent appraisals and action tendencies. Thus, in this view, emotion involves the occurrence of action tendency and behavior, physiological changes, cognitive evaluations, and subjective experience (see p. 473). This perspective is quite exhaustive in that it encompasses and combines elements which have been stressed across many other theories of emotions. A perhaps still broader perspective on emotion appears in the writings of social constructivist psychologists who typically view emotion as a *social role* and as a syndrome. Because they argue that emotions are essentially social constructions of the person, they draw

heavily on notions and findings from anthropology and sociology (e.g., Averill, 1974, 1980a, b, c; 1982; Harré, 1986). For instance, Averill (1974, 1980a, b, c, 1982) has presented emotion as an *action*. However, his phenomenological studies have suggested that individuals generally display the tendency to think of emotions as passions partly so as to avoid responsibility for their actions while they are in an unreasonable or uncontrollable emotional state. Averill (1980c) states that:

> [t]he term "passion" is derived from the latin *pati*, which means "to suffer" or "undergo change." The passions thus include those behaviors which seem to happen to a person, or over which a person has no control. This meaning is expressed colloquially in such phrases as "falling" in love, being "gripped" by anger, "seized" by fear, "torn" by jealousy, "transported" by joy, "subdued" by grief, ... (p. 14)

Clearly, the field of emotion implies a universe of content so broad that it may not be amenable to a consensual definition. Zajonc (1998) argues that:

> [b]eing strict and precise with a definition that specifically includes all phenomena that the term is meant to subsume and exclude all that it is not, runs into a host of overlapping and borderline phenomena which different authors sought to arbitrarily count as "emotion" and others not. (p. 591)

The intractability of the problem of defining emotion has been attributed to various reasons: (a) their characterization as unplanned, unexpected, and non-rational which makes it difficult to describe emotion in rational terms (Averill, 1980a, b; Parkinson, 1987); (b) the complexity of the set of emotional phenomena which displays a fuzzy rather than a clearly delineated boundary between emotion and non-emotion (see Fehr & Russell, 1984); (c) the breadth, richness, and pervasiveness of emotions that is reflected in all areas of life in that they involve social, cultural, interpersonal, psychological, neurophysiological, and neuroanatomic processes, engage motivation and cognition, and underlie all facets of behavior (Zajonc, 1998); (d) findings which suggest that although there are characteristic features of emotion (facial expressions, overt behaviors, antecedent appraisals, internal arousal, etc.), none is a necessary condition for emotional experience (e.g., Averill, 1980a, b, c; Parkinson, 1997; Valins, 1966; Zajonc, 1980); (e) the ongoing debate on the relation of emotion to cognition (Lazarus, 1984a, b; Zajonc, 1980, 1984); and (f) a multitude of perspectives on emotion (see Cornelius, 1996) across a variety of fields and disciplines (psychology, anthropology,

sociology, philosophy, etc.) which offer often radically different perspectives. Accordingly Way and Masters (1996) state that: "[d]ifferent theorists map the term *emotion* onto different stages of sensory processing, different behavioral phenomena, and different subjective experiences" (p. 213). They add that: "[t]his reflects the fact that emotion is not an empirical entity; it is a term that has long been in human discourse and has varied meanings and subtle nuances for different individuals and cultures" (p. 213). This perhaps reflects the complexity and ubiquity of emotional phenomena. These and presumably other reasons have quite evidently contributed to the lack of a consensual or classical definition of emotion. This intractability and the problems which it has generated have clearly impeded the study of emotion in areas such as marketing which are dependent on core disciplines for basic conceptualizations and operationalizations.

The contemporary psychology-based literature on emotion is replete with diverse perspectives, characterizations, and overlapping terms (Oatley & Jenkins, 1992). In particular, the terms *emotion*, *mood*, *affect*, and *feelings* often appear to be used interchangeably by many authors. As in any area of research which relies heavily on experimental and more generally, on quantitative methodologies, conceptual imprecisions and confounds can only have dire effects (Kerlinger, 1986). Accordingly, Panksepp (1982) states that the "semantic controversies that routinely arise in the discussion of emotion have hindered the progress of research in this area" (p. 452). Cohen and Areni (1991) viewed *affect* as a *valenced feeling state* and presented *mood* and *emotion* as subcategories of this state. Similarly, Spielman, Pratto, and Bargh (1988) have suggested that the general term *affect* can be subdivided into several areas which include: (a) *evaluations* (i.e., evaluative judgments akin to attitudes) which are simple reactions to specific stimuli or a positive or negative mental response to a person or thing; (b) *moods* which are generalized feeling states that are distinguished by their lack of a specific target or referent; and (c) *emotions* which are more intense than moods but do not last as long. They go on to say that: "[t]o go beyond these types of basic definitions is to discover why the separation of affect and cognition is so difficult" (p. 298). Nevertheless, Fridja, Mesquita, Sonnemans, & Van Goozen (1991) discuss three additional categories of affective phenomena which appeared in self-reports.

They define *emotion episodes* as "states of emotional involvement with one emotional event"; *sentiments* as "emotional dispositions with regard to a specified object"; and *passions* as "persistent goals for action of an emotional state" (pp. 189-190). Moreover, they argue that their data suggested that a particular emotion can be differentiated from other affective states and from other emotions by the following characteristic features: "a specific mode of appraisal and of action readiness" (p. 221). Forgas (1991a) further specifies the differences between mood and emotion:

> [s]everal theorists have suggested that moods are low intensity and relatively enduring affective states with no immediately salient antecedent cause and clear cognitive content (e.g., feeling good or feeling bad). Emotions in turn are more intense, short lived and usually have a definite cause and clear cognitive content (e.g., annoyance, anger, or fear). Both moods and emotions have informational value. Whereas mood functions as a general, nonspecific positive or negative input that may be easily misattributed to an incorrect cause ... emotions presumably evolved with specific signaling functions about particular environmental occurrences .... There is some evidence that moods have a relatively constant, nonspecific and additive effect on social judgments, while emotions, because of their high cognitive content, are dealt with in a manner similar to other cognitive inputs .... Both of these terms are different from evaluation, an essential component of most attitudes, that may or may not involve affective reactions ... (p. 5)

The temporal characteristics of emotion carry an important theoretical significance (see Fridja, 1986). When the duration of emotion is rather sustained beyond the eliciting event, the resulting affective state is referred to as a *mood* (Ekman, 1984). Recurrent moods have been presented as "systematic biases in personality" (Malatesta-Magai & Culver, 1991), "habitual emotional attitudes" (Fridja, 1986), or personality traits (Ekman, 1984).

Reisenzein (1983) has proposed that although there is no consensual definition of emotion, four important components of emotion are generally taken into account: (a) *emotional experience* or *subjective feelings*, (b) *physiological arousal*, (c) *expressive reactions*, and (d) *emotion-related instrumental activities*. Expressive reactions and instrumental activities are sometimes subsumed under a broader *behavioral response* component (e.g., Öhman, 1986). The internal feeling state component is often taken to refer to the phenomenology of emotion (e.g., Roseman, Wiest, & Swartz, 1994). Reisenzein (1983) adds that: "[e]xtending this viewpoint, some theorists have suggested that on a very

general level, emotions can best be understood as multidimensional response syndromes" (p. 242). Such a perspective is partly based on that of the social constructivist Averill (1975, 1980a, b) who has presented emotion as something that is polythetic or made up of multiple aspects which may appear concurrently. Similarly, Scherer (1984a, 1988a) has proposed that emotion be viewed as a multicomponent process, and thus a syndrome, which includes: (a) *cognitive processes*, (b) *expressive behavior*, (c) *central and autonomic nervous system changes*, (d) *motivational aspects*, (e) *action tendencies*, and (f) *subjective feeling states*. Theories of emotion typically emphasize one component in particular. Darwinian perspectives (e.g., Ekman, 1982, 1989, 1999; Izard, 1977, 1994) have emphasized the expressive component of emotion. Alternatively, cognitive theories of emotion stress cognitive processes (i.e., appraisals or judgments) as antecedents to emotion (see Lazarus, 1991a; Scherer, 1993; Weiner, 1985a, 1986) whereas Fridja (1986) has put particular emphasis on the *action tendency* component (i.e., the tendency to act) of emotion (see also Mesquita & Fridja, 1992). Recent experimental literature in psychology has stressed the role of *social context* in the experience and expression of emotion (e.g., Buck, 1991a; Chovil, 1991; Fridlund, 1991b, 1992a) and has specified *action tendency* as a form of *social intent* (Jakobs, Fischer, & Manstead, 1997).

Various perspectives suggest that many of the components of emotion can be regulated (see Gross & Levenson, 1993; Gross & Muñoz, 1995; Izard, 1990; Mesquita & Fridja, 1992; Scherer, 1982a; Walden & Smith, 1997). Zajonc (1998) purposely avoids providing a definition of *emotion*. Rather, he suggests a definition of *emotional reaction* which broadly reflects the notions of adaptive emotional responses and regulation:

> *The capacity of emotional reaction ... is the capacity to discriminate between and to respond adaptively to present and anticipated conditions that are likely to be harmful or beneficial to the individual or his/her community.* This definition is explicit in positing response potentials that are sensitive to reinforcement contingencies and to individual and social outcomes. (p. 592)

In taking a functional perspective, Gross and John (1997) proposed that emotions only suggest response tendencies and that unlike reflexes, they only urge a person to action. In other words, emotions do not necessarily compel a person to behave in a particular

manner. Similar distinctions appear in Fridja (1986, 1987, 1988, 1993) as well as in Ekman (1984). For instance, Ekman (1984) argued that *startle* was a reflex but not an emotion (see also Cannon, 1929). In another study, Ekman, Friesen, and Simons (1985) found that unlike most emotions, *startle* is not affected by anticipation and cannot effectively be simulated or suppressed. Moreover, Ekman (1984) stated that:

> [o]ur studies of emotional expression may help in distinguishing the boundaries of emotion, how an emotion differs from a reflex, mood, emotional trait, or emotional disorder. The distinctions I wish to draw among these affective phenomena are partly, but imperfectly, expressed in language. Distress is an emotion, feeling-blue a mood, melancholic an emotional trait, and depression the related emotional disorder .... Language suggests but cannot provide the bases for discovering how emotions differ from these other affective phenomena .... I propose to distinguish the boundaries of emotion by focusing not on language but on the patterned changes in expression and physiology which are distinctive for emotion. (p. 330)

Ekman (1984, 1989, 1992a, b, c, 1993, 1994, 1999) has generally argued in favor of a small set of emotions which he deems basic or fundamental. Accordingly, Ekman (1984) proposed that emotions involve and/or are characterized by the following: (a) distinctive pan-cultural/universal signals[2]; (b) distinctive universal facial expressions that are traceable phylogenetically; (c) emotional expressions involve multiple signals conveyed by channels related to the voice as well as the face; (d) limited duration and quick onset; (e) "the timing of an emotional expression reflects the specifics of a particular emotional experience"; (f) expressions that vary in intensity which reflect variations in the strength of subjective experience; (g) expressions of emotion can be totally suppressed or inhibited; (h) expressions of emotion can be simulated in a convincing manner; (i) "there are pan-human commonalities in the elicitors for each emotion"; and (j) "there is a pan-human, distinctive pattern of changes in the autonomic and central nervous system for each emotion." Finally, Ekman (1984) argued that duration is probably the most useful indicator in distinguishing emotion from and among other affective phenomena.

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[2] Alternatively, the Freudian perspective on emotion holds that emotion is like one of the five senses and serves the role of a signal to the individual experiencing the emotion (see Hochschild, 1983a, p. 221) rather than that of a signal to others as in Darwinian perspectives (see Buck, 1984, 1988a, 1991a; Dimberg & Öhman, 1996; Fridlund, 1991a, 1992a, 1994).

Clearly, functionalist and somatic perspectives underlie Ekman's views on emotion. They are largely attributable to Darwin (1872) and James (1884, 1890). These perspectives and their characteristics will be discussed in greater detail throughout this chapter and in Chapters Three and Four. Ekman's stance on emotion is similar to that of Izard, Plutchik, Tomkins, as well as that of many other contemporary researchers who have proposed that emotion is an evolved phenomenon and that some emotions are basic or fundamental. Izard (1977) and Plutchik (1980a, b, c, 1997) have both suggested that basic emotions are analogous to primary colors, which, when blended yield the entire spectrum of colors. Earlier, McDougall (1921) clearly drew a parallel between emotions and colors:

> The color sensations present, like the emotions, an indefinitely great variety of qualities shading into one another by imperceptible gradation; but this fact does not prevent us [from] regarding all these many delicate varieties as reducible by analysis to a few primary qualities from which they are formed by fusion, or blending, in all proportions, the same is true of the emotions. (p. 114)

Accordingly, this perspective holds that basic or fundamental emotions are the primitive forms of other 'blended,'derived, or mixed affect states. Descartes (1647) and Spinoza (1677) held similar views. Scherer (1984a) has referred to this variety of discrete emotion theory as "palette theory" (p. 43). This view is also evident in attempts to show how emotions are interrelated in two-dimensional spaces (e.g., Russell, 1979, 1980) which typically form a circular arrangement of emotions similar to a color circle (see Plutchik, 1997).

Another group of theories has put great emphasis on the role of cognition in emotion. The cognitive perspective generally holds that antecedent appraisals determine discrete emotions. In many cases, cognitive theorists have argued that appraisals are not only necessary but sufficient to account for emotion (Lazarus, 1991a; see also Parkinson, 1997). In a review of the literature on emotion, Bagozzi et al. (1999) further specify the distinctiveness of emotion and emphasize an appraisal theory perspective:

(a) The state of readiness underlying emotion is typically more intense than that associated with attitudes and moods. It is more intense in the sense of strength of felt subjective experience, plus magnitude of physiological response (e.g., autonomic nervous system activity) and extent of bodily expression (e.g., facial displays) when these latter reactions accompany an emotion. (p. 185)

(b) Probably the most important factor differentiating emotions from moods and attitudes is the way emotions arise. Emotions are said to have a specific referent (e.g., a consumer becomes pleased when a detergent removes grass stains from clothing; he or she is angered by poor service in a restaurant). Specifically, emotions arise in response to appraisals one makes for something of relevance to one's well-being. By appraisal, we mean an evaluative judgment and interpretation thereof. By something of relevance, we mean an incident or episode that happens to oneself (e.g., an unplanned event); a behavior one performs or a result one produces (e.g., engaging in an activity or receiving or failing to receive a planned outcome); or a change in an object, person, or thought that has personal meaning. (p. 185)

Similarly, Averill (1980c) proposed that what distinguishes emotion as passions from related concepts is that the generation of emotion requires antecedent appraisal:

> What distinguishes the emotions proper from other kinds of passion (e.g., from perceptual responses and deficit states [e.g., hunger])? Without going into detail, it may be said that emotions are based on cognitive appraisals (i.e., an evaluation of the situation) as opposed to simple sensory experiences and/or organic changes. A glimpse, a twinge of hunger, a habit, or a reflex may occur while the person is preoccupied with something else; but the emotions monopolize. These distinctions are not absolute, of course, and hence it is not surprising that the emotions have often been characterized as perceptual phenomena (Leeper, 1970), as intervening drive variables (e.g., Brown & Farber, 1951), or as reflexes (Cannon, 1929). (p. 16)

Classification attempts of emotion are many. Language (semantics) has played an important role in emotion research in that it provides the semantic categories with which people label emotion. The words *anger*, *sadness*, and *excitement* represent semantic categories in the English language. Investigations of how people refer to emotions and other affective states are numerous and appear to reveal not only the various meanings attached to an emotion label but also how emotion and other affect-laden terms are interrelated (e.g., Averill, 1975; Ortony, Clore, & Foss, 1987; Storm & Storm, 1987). That "[a]ll emotions are affective, but that all affective conditions are not emotions" was demonstrated in Clore, Ortony, and Foss (1987, p. 751). In their examination of previous studies which had made use of *emotion terms* or *words* (e.g., Plutchik, 1962; Russell, 1980), Clore et al. (1987) found that a high level of confusion was apparent in the affective lexicon (see also Clore & Ortony, 1987). The affective lexicon is said to encompass "the subset of words in a language that are about affect or affective conditions" (Clore et al., 1987, p. 751). Across studies, this lexicon has tended to be presented as fairly large in terms of the number of elements that should

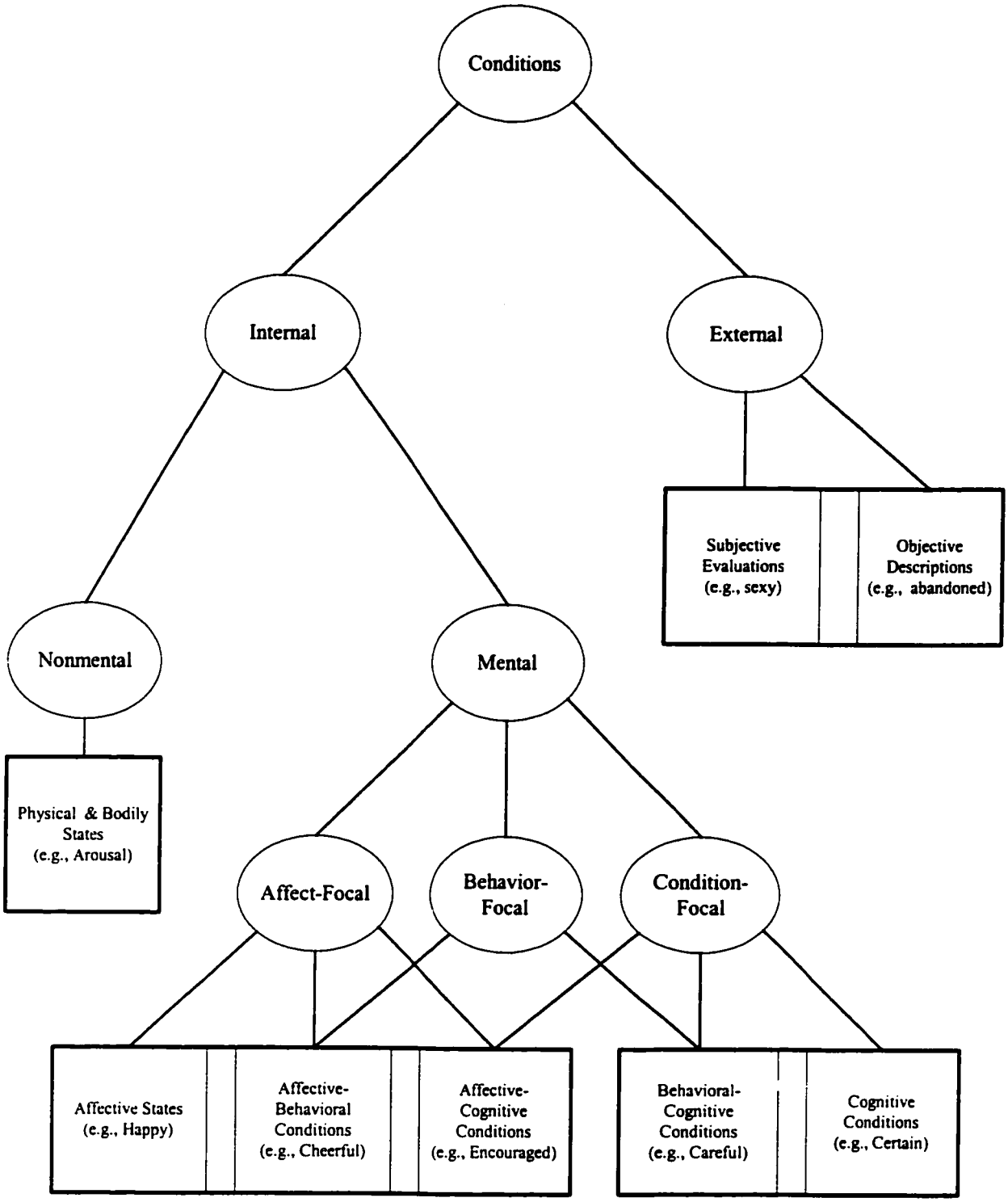
presumably be included. Criteria for inclusion have often been broadly and loosely specified. Specifically, Clore et al. (1987) suggested that what some researchers labeled an emotion in the English language was often questionable. One example they provided was a study by Abelson (1983) where *luckiness*, *conflict*, and *rectitude* were presented (and most likely misrepresented) as *emotions words*. Similar comments were directed at some emotion words/labels used in Russell (1980) as well as in Plutchik (1980a). Some of these words are clearly devoid of emotional meaning.

Partly motivated by the lack of a clear consensual definition of emotion in the literature, Ortony, Clore, and Foss (1987) proposed a taxonomy of affective conditions which was based on over 500 words contained in the English language affective lexicon. This effort aimed to specify the commonalities between emotions and the distinctiveness of emotion from other psychological states. No particular theory of emotion was used to guide their classification. Consequently, rather than focusing on a particular definition as a starting point, they attempted to specify the distinct constituents or characteristics of emotion. The suggested taxonomy appears in Figure 1. Within this classification, ellipses represent salient features which distinguish between different psychological conditions. The eight squares represent eight different categories that are collapsible into four different classes. The *affective conditions class* appears in the bottom left rectangle. The three *affective conditions* within this class are those where affect is focal. Emotion is presented as a valenced (i.e., positive or negative) reaction to perceptions of situations. Excluded from the domain of emotion were (a) bodily states (e.g., sleepy), (b) subjective evaluations of people (e.g., self-confident), and (c) non-valenced cognitions (e.g., surprise) (Ortony et al., 1987; Ortony, Clore, & Collins, 1988). The exclusion of such bodily states as "sleepy" from the domain of emotion is in clear contradiction with the content used to generate a variety of dimensional perspectives on emotion. Some of these attempts are exemplified by the work of James Russell (e.g, 1978, 1979, 1980, 1997).

In a parallel study, Clore et al. (1987) argue that emotions should "all be members of one of the three affect-focal categories that constitute the Affective Conditions class, perhaps with the more prototypical being located in the Affective States category" (p. 753).

Figure 1

The Affective Lexicon



Source: Ortony, Clore, and Foss (1987)

They then went on to assess the soundness of the classification proposed in Ortony et al. (1987). An eight category discriminant analysis demonstrated that the eight proposed *a priori* categories were discriminant. Clore et al. (1987) state that:

> [t]he data clearly support this position, suggesting that membership in the Affective Conditions class ... constitutes a theoretically defensible criterion for a word to count as an emotion term. The data show that the clearest cases of emotions were provided by terms referring to conditions we had classified in the Affective Conditions class and the clearest cases of nonemotions were those we had classified as Physical and Bodily States. As predicted, these had the highest and lowest emotion ratings, respectively. (p. 758)

1.2 Psychological Theories of Emotion

Zajonc (1998) has suggested that "[a]mong all major psychological processes, emotions are of prime importance" (p. 591). Simultaneously, emotion is perhaps the most complex phenomenon that has confronted researchers in the field of psychology. The complexity of emotion rests partly in that it involves and engages a multitude of aspects and levels of integration within the individual (Lindsley, 1951). Moreover, emotion is also a function of a variety of factors that lie outside the individual which include social, cultural, and interpersonal aspects (Fridlund, 1991b, 1992a; Harré, 1986; Hochschild, 1983a; Kemper, 1991; Kitayama & Markus, 1994; Parkinson, 1997). In other words, emotion is a multicomponent process within the individual or at the intrapersonal level (Averill, 1980a, b, c, 1982; Scherer, 1984a) and it is also a phenomenon that is shaped by many other factors which are interpersonal, cultural, and social (Zajonc, 1998). At the intrapersonal level, investigations have typically been undertaken by psychologists who have argued from a variety of perspectives within their field. The various proposed components of emotion at this level of analysis include expressions, antecedent thought content, subjective feeling, physiological concomitants, and action tendencies or response patterns (Scherer, 1984a). Each component has been used in attempts at differentiating among discrete emotions (Roseman, Wiest, & Swartz, 1994). On the other hand, emotion at the interpersonal, cultural, and social levels of analysis has involved investigations from anthropological (e.g., Lutz, 1988; Mead, 1975), sociological (see Kemper, 1991, 1993), communication studies (e.g., Andersen & Guerrero, 1998; Buck, 1984; Metts & Bowers, 1994), and multidisciplinary or

interdisciplinary perspectives (e.g., Averill, 1982; Harré, 1986; Hochschild, 1983a).

Theories of emotion in the non-clinical[3] realm of psychology are numerous. Some varying and differing perspectives were introduced above and were perhaps apparent in our overview of attempts at providing definitions of emotion and at relating attempts at delineating emotion from other affect-based constructs. Within psychology, each school of thought asks particular questions with respect to emotion and has its own set of specific assumptions about the nature of emotion, its component parts, the antecedents and consequents of emotion, its purpose or function, and ways by which to conduct research (Cornelius, 1996). Accordingly, Zajonc (1998) suggests that:

> theories of emotion come from many fields of psychology, and these theories start with many perspectives, make different assumptions, and seek to accomplish different goals. A global view of research in the field of emotion does not offer a coherent picture. (p. 594)

More than one hundred years ago, James (1890) lamented that writings on emotion had "nowhere a central point of view, or a deductive or generative principle" (p. 1064). Today, things have evolved to some extent but to make sense of the literature on emotion is still a tedious task as attested by Zajonc (1998). Despite their often radical differences, one element binds this vast array of theories together and underlies the psychological perspective on emotion: the notion that emotion is not only expressed but is also felt. Psychological theories show major differences with respect to another group of theories which are sociological and view emotion as a social rather than a biological or physiological phenomenon. More precisely, purist sociological accounts regard emotion as something that is not necessarily felt and focus on the expression of emotion and the social mechanisms which regulate its expression (e.g., Zurcher, 1982, 1985). These mechanisms include social structure and a wide array of sociocultural norms (Kemper, 1991). Sociological theories of emotion will be addressed in the next chapter although some of their theoretical

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[3] Our focus throughout this chapter is on non-clinical and non-psychoanalytic perspectives on emotion. In particular, we focus on experimental and phenomenological research in psychology. However, a series of useful and classic references by Freud have been provided for the reader. These references appear in Hochschild's (1983a) work where she partly draws on the Freudian perspective to formulate her interactional theory of emotion.

underpinnings will appear in our treatment of *social constructivism* which essentially represents an interdisciplinary approach.

Contemporary psychological theories of emotion can effectively be classified into four types: (a) the Darwinian, (b) the Jamesian, (c) the cognitive, and (d) the social constructivist perspectives (Cornelius, 1996). Some contemporary researchers have tended to draw heavily on both the Darwinian and Jamesian perspectives. This is particularly evident in the work of Ekman and Izard. Despite some differences (e.g., Darwin's focus was on the expression of emotion or efference whereas James was concerned with their experience and underlying autonomic afference), both perspectives stress in varying degrees the biological, evolutionary, and physiological bases of emotion. Both perspectives also represent functionalist theories of emotion in that they view emotion as primarily adaptive (Smith, 1989). Zajonc, Pietromonaco, and Bargh, (1982) have referred to these perspectives as *somatic theories* of emotion. They will be addressed as such below.

A classification that is based on (a) *somatic*, (b) *appraisal*, and (c) *social constructivist* theories does not provide mutually exclusive categories. Evidently, emotion theorists have often tended to draw and incorporate components from a variety of core perspectives. For instance, Fridja's (1986) theory can clearly be classified as *somatic* because of its Darwinian tenets and also as an *appraisal theory* because it suggests that appraisals give rise to emotions. This is even more evident in Averill's (1980a, b, c) social constructivist perspective on emotion which not only draws on multiple core perspectives in psychology but is also interdisciplinary in that it incorporates notions typically associated with anthropological and sociological perspectives on emotion and the self. As such, it is addressed as a separate category of emotion theory within psychology. Despite its shortcomings, the suggested classification allows one to impose some form of structure on and make sense of an enormous amount of literature.

Perhaps the clearest distinction which emerges from an exhaustive review of the psychology-based literature on emotion is that between *somatic* and *appraisal* theories. Amongst other differences, each class of theories stresses and focuses on different determinants of experienced feeling states. Somatic theories in the Darwinian tradition

emphasize hardwired biological and evolutionary determinants and those in the Jamesian tradition, rather counter-intuitively, suggest that emotional expression determines feeling states and that particular or distinct patterns of physiological activity underlie the experience of each basic emotion. On the other hand, appraisal theories suggest that some form of cognitive judgment causes discrete feeling states. Some have vehemently argued that some form of cognition is necessary for an emotion to occur (e.g., Lazarus, 1991a; see also Parkinson, 1997). Cognitive theorists have sought to specify alternate combinations of antecedent appraisals which result in differing discrete emotional states (Smith & Ellsworth, 1985, 1987; Scherer, 1993). Zajonc, Pietromonaco, and Bargh (1982) differentiate the Darwinian and cognitive perspectives:

> On the one hand are theories of affect that derive from the Schachter-Singer (1962) tradition such as Mandler's theory (1975) or that of Lazarus (1966). They are the *cognitive theories of emotion* because in these theories cognitive processes constitute necessary elements. Another class of theories of emotion focuses less on the participation of cognitive processes and more on the participation of somatic processes. These are theories such as Izard's (1977), Leventhal's (1980), and Tomkins' (1962, 1963). They are the *somatic theories of emotion*. The cognitive and somatic theories of emotion are not contradictory of each other; they have merely different emphases and interests. Thus, cognitive theories of emotions, since they follow the Singer-Schachter tradition, focus mainly on the explication of the emotional *experience*. In contrast, the somatic theories are more concerned with the *expression* of emotion. These latter theories seek to determine if there are universalities in emotional expression (e.g., Ekman & Friesen, 1975), or what aspects of the emotional expression allow one individual to recognize the emotion of another. (p. 212)

Elsewhere, Zajonc, Murphy, and Inglehart (1989) stress the differences between somatic theories in the Jamesian tradition and cognitive appraisal theories:

> Among theories of emotion only facial feedback theories ... regard facial expression as an important determinant of the subjective feeling state. In cognitive appraisal theories ..., facial feedback does not figure as a significant process that modifies or induces feeling state. According to cognitive appraisal theories, subjective feeling derives from and follows a prior cognitive appraisal. (p. 395)

Finally, contemporary research on emotion within psychology has been supplemented by findings in *neurophysiology* and *neurobiology*. Various researchers have tried to identify brain regions which are involved or activated during emotional episodes (e.g., LeDoux, 1989,

1996; Panskepp, 1982; Gray, 1987; Rolls, 1995). The proper coverage of this area of emotion research is beyond the scope of this chapter. However, we have attempted to draw on evidence of this type when necessary. For those interested in readings in this area, we take the liberty of suggesting the work of LeDoux (1986, 1989, 1992, 1993, 1995a, b, 1996) whose accounts of the neurological and neurobiological mechanisms of emotion are perhaps the most often cited in recent publications in psychology which draw on neurophysiological and neurobiological research on emotion (e.g., Öhman, 1999; Scherer, 1993).

1.2.1 Somatic Theories of Emotion

Over the 1920s and 1930s, emotions were presented as maladaptive because theorists had observed that extreme levels of emotional arousal can disrupt coping (e.g., Angier, 1927; Young 1936). Later, these *conflict theories* of emotion were greatly criticized and rejected by researchers in the field of emotion (e.g., Arnold, 1960; Lazarus, 1968; Leeper, 1965). Consequently, many contemporary theorists have revived the early functionalist perspective on emotion first proposed by Darwin (1872) and later extended by James (1884, 1890). Darwin had observed that the phylogenetic continuity of a biologically-based emotion mechanism was likely in animals and humans (Cornelius, 1996). Accordingly, he argued that emotions had evolved through natural selection and thus had adaptational functions which aided an organism (and its ancestors) in dealing with key survival issues and environmental demands. Emotions were thus presented as biologically determined, genetically transmitted, and functional in that they provide a mechanism which aids an organism to survive. In accordance with the Darwinian perspective, Öhman (1999) suggests that:

> it is clear that emotions are commonplace among mammals. A pet owner surely distinguishes between emotional states in his/her darling creature. Indeed, an emotion such as fear is remarkably similar in its expression across mammalian species, and thus must have been resilient in evolutionary change. From the perspective provided by biological evolution, emotions can best be understood in relation to a functional agenda set by the ecological demands imposed by the environment in which species evolved. Thus, emotions are embedded in tasks our forefathers had to solve in order to deliver better genes to the next generation (Tooby & Cosmides, 1990). Recurrent adaptive demands, such as finding food and shelter, asserting oneself, and finding protection among conspecifics, escaping dangers such as predation, finding sexual partners and producing children, caring for children, and so on, are all activities that are structured by emotion .... Emotions make us want to do what our forefathers had

to do in order to survive and deliver genes to the next generation. (p. 337)

Darwin held that important aspects of emotion were its expression and recognition. Specifically, Darwin (1872) argued that the expression and recognition of emotion were universal or culturally invariant. Similarities in emotional expression and behavior have been observed across species, in the human between infancy and adulthood, and across human cultures (Andrews, 1963; Izard, 1977, 1994; Stein & Oatley, 1992). Accordingly, Cacioppo, Bush, and Tassinary (1992) state that Darwin (1872) suggested that: "the distinctive facial configurations associated with emotions were components of coherent neurophysiological systems that had evolved because of their adaptive direct effects and/or social consequences" (p. 516). They add that:

> [e]xpulsion from rancid material from the mouth in disgust is an example of a direct effect of "expressive" actions, whereas the decreased likelihood that conspecifics would eat rancid food having observed an association between the foodstuff and a disgust display is an example of a social consequence of facial displays. (p. 516)

Importantly, the Darwinian (1872) perspective suggests that the emotion process requires no direct involvement of cognitive functions (Cornelius, 1996). Two other important principles[4] underlie Darwin's (1872) perspective on emotion. The first, which he called the *Principle of Serviceable Associated Habits*, held that many of the physiological changes which were part of an expression of emotion were tendencies to action or "weak preparatory forms of behavior that had previously been adaptive under the emotion's typical eliciting conditions" (Smith, 1989, p. 339). This connection of emotion to a potential for action was a major tenet in Darwin's theory (Hochschild, 1983a).

An innate mechanism for the recognition or decoding of basic emotional states in others was also proposed by Darwin (Buck, 1984, 1988a; Dimberg, 1983, 1988a; Dimberg & Öhman, 1983, 1996). This second principle suggested that emotional expressions involved communicative functions designed to indicate to others how one feels and how one intends to act (Cornelius, 1996). Dimberg & Öhman (1983) state that: "[f]rom an evolutionary point

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[4] Although the following tenets are often referred to as Darwin's basic principles, Fridlund, (1992b) draws attention to the many contradictions in Darwin's work and to how this work may have been misinterpreted.

of view it could be argued that if facial expressions are determined by biologically given 'facial affect programs' (Ekman, 1972), it is likely that humans are also biologically predisposed to decode and react adaptively to these facial stimuli" (p. 160). Elsewhere, Dimberg and Öhman (1996) hold that:

> [t]he evolutionary perspective on human facial behavior implies that the complex pattern of human facial muscles for displaying different facial expressions has co-evolved with an adaptive capacity to decode and respond appropriately to the facial displays of conspecifics. In other words, we could expect individuals to have an evolutionary derived readiness, not only to act as *senders*, but also to be prepared to act as *receivers*, by recognizing and reacting adaptively to different displays in face-to-face interactions .... (p. 152)

This perspective suggests a hardwired *preparedness* to react (see Seligman, 1970) to emotional expressions in others. However, recent research suggests that preparedness appears to be reserved for reactions to stimuli closely associated with or relevant to the emotions fear and anger (e.g., angry expressions, snakes, etc.) (see Dimberg, 1990a, 1995; Dimberg & Öhman, 1996; Smith et al., 1996).

Many contemporary variations of Darwin's evolutionary theory of emotion are in existence. The Darwinian theory of emotion and its more recent offshoots have come to be known as *expressive motor theories* (see Figure 2a). Leventhal (1979) states that:

> [e]xpressive motor theories tend to take emotions for granted, i.e., the experience and expression are seen to be manifestations of an innate mechanism ... situations provoke activity in an emotion center which produces subjective emotion and expressive reaction, and emotion leads to various forms of adaptive behavior. (p. 3)

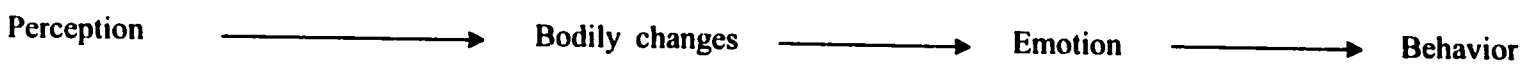
Contemporary research which draws heavily on the Darwinian perspective is typified by Ekman's (1972, 1973) and Izard's (1977) work on emotion recognition in the face, by Plutchik's (1980a, b, 1984) *psychoevolutionary theory of emotion* where basic emotions are presented as prototypical, by a somewhat similar theory proposed by Shaver and his colleagues which they called the *evolutionary prototype theory of emotion* (see Shaver, Schwartz, Kirson, & O'Connor, 1987; Shaver, Wu, & Schwartz, 1992), and by Fridja's (1986) work where emotions are associated to *action tendencies* which, in turn, are presented as adaptive responses to events.

Figure 2

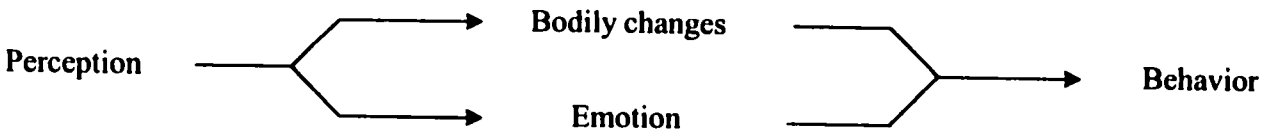
Four Classic Models of the Relationship Between Events, Emotion, and Behavior

a. Prior to 1884

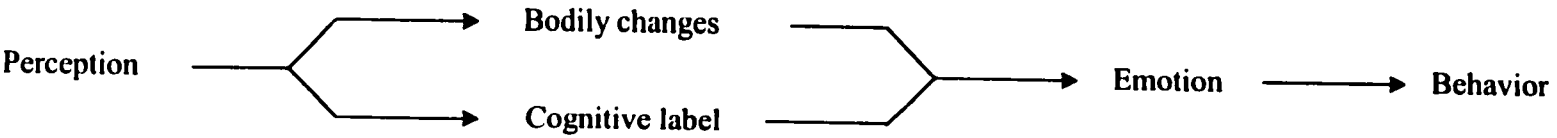
b. The James-Lange Theory



c. Cannon's Emergency Theory of Emotional Arousal



d. Schachter's Cognitive-Physiological Model



Source: Petri (1986)

The evolutionary perspective on emotion is exemplified by the following statement in Levenson, Ekman, Heider, and Friesen (1992): "the connections among different aspects of emotion (antecedent conditions, facial expressions, vocalization, and ANS[5] [Autonomic Nervous System] activity are evolved phenomena, having been established through natural selection so the organism can respond most efficiently to certain prototypical environmental demands" (p. 972). In this perspective, emotion is treated as a mediator between environmental stimulation and behavioral response (Gross & Levenson, 1993; Izard, Libero, Putnam, & Haynes, 1993; Smith, 1989; Smith & Ellsworth, 1987). Moreover, each emotion has been presented as serving a particular function. For instance, fear prepares one to evade peril and anger serves to motivate a person to remove an irritant or obstacle (see Ellsworth & Smith, 1988a; Fridja, 1986; Izard, Libero, Putnam, & Haynes, 1993; Plutchik, 1980a, b; Smith, 1989). Accordingly, Izard, Libero, Putnam, and Haynes (1993) state that:

> [t]he inherent adaptiveness of an emotion is, in part, a function of the reliability of its core feeling or motivational state. Thus, a fear experience is always characterized by the same motivational state, which, in turn, always motivates the same type of thought and action. Although such thought-action sequences may take innumerable forms, it is always relevant to escape or avoidance and the cognizance of safety. If the basic feeling of fear varied qualitatively, it would not always motivate the appropriate cognition and action. (pp. 847-848)

Darwinian theories are closely associated with the notion of basic, fundamental, or primary categorical emotions (e.g., Ekman, 1980, 1992b; Izard, 1972, 1977; Plutchik, 1980b). Ellsworth (1994) states that: "[i]n the strongest statements of this point of view, these basic emotions are described as hardwired, holistic programs, built into the species, which cannot be broken down into meaningful components and which cannot be modified

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[5] The autonomic nervous system (ANS) is involved in the regulation of vegetative processes or processes that are not voluntarily controlled such as heartbeat, body temperature, blood vessel dilation and constriction, etc. (Carlson, 1977). The ANS also controls the endocrine system (Petri, 1986). The sympathetic (SNS) and parasympathetic (PNS) nervous systems are two components of the ANS and tend to have opposite effects on each other. When triggered, the SNS causes secretion of adrenalin (epinephrine), increased blood flow to the muscles, and increased heart rate. It appears to be designed for aiding the organism in dealing with emergency situations (i.e., fight or flight). On the other hand, when the PNS is activated, heart rate decreases, blood vessels dilate, and blood flow is directed to the digestive system. The PNS is typically activated after a big meal. Emotion has been linked to changes in components of the ANS by various researchers (see Cacioppo, Uchino, et al., 1992; Cornelius, 1996; Dimberg, 1990a; Levenson, 1996; Petri, 1986).

except by the person's subsequent learned response to the firing program" (p. 28). Consequently, basic emotions and their expressions have been presented as culturally universal[6]. In other words, proponents of these theories suggest that expression and recognition of basic emotions should not vary culturally because they reflect unitary complexes (basic emotions) and each involves a neurologically-based program (Ekman, 1971, 1977; Izard, 1972, 1977). Thus, they regard all people as biologically predisposed not only to display but also to recognize the facial expressions associated with a small number of basic emotional states. For instance, Ekman, Sorensen, & Friesen (1969) demonstrated that a small set of basic emotions expressed through facial display patterns can be recognized across cultures. This consequently suggested the presence of a genetic component to the facial expression of emotion and downplayed the role of cultural factors[7].

Fundamental or basic emotions have been said to include *anger, contempt, guilt, disgust, distress, fear, shame, interest-excitement, joy,* and perhaps *surprise* (Izard, 1977); or *happiness, anger, disgust, fear, sadness,* and perhaps *surprise* (Ekman & Friesen, 1975); or *happiness/enjoyment, anger, disgust, fear, sadness, surprise,* and potentially *contempt, shame, guilt, embarrassment,* and *awe* (Ekman, 1992b; Rosenberg & Ekman, 1995). Ekman (1992c) states that:

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6 Ekman (1992b, pp. 170-1) suggests that the phrase 'basic emotion' carries three meanings within functionalist perspectives on emotion. The first is that "[t]here are a number of separate emotions which differ one from another in important ways. The second is that "[e]volution played an important role in shaping both the unique and the common features which these emotions display as well as their current function." In other words, "emotions evolved for their adaptive value in dealing with *fundamental life tasks*." He adds that: "[a] third usage of the term 'basic' is to postulate that other non-basic emotions are combinations of the basic emotions." Alternatively, Ortony and Turner (1990) have argued that the phrase basic emotions has usually been used in two ways: (a) to describe elemental emotions which combine to form other larger and more complex emotions and (b) to denote that some emotions have a biological basis. Ekman (1992c) vehemently disagrees with the first interpretation made by Ortony and Turner (1990). He states that: "I will not comment on the first because neither I nor most other current researchers who posit basic emotions use the concept in this way. My focus instead will be on the arguments and evidence that suggest that emotions are a product of our evolution, with some biological givens" (p. 550). The notion of universality in emotional expression and recognition clearly rests on Darwinian tenets.

7 The role of cultural factors in shaping emotion has long been recognized by cultural anthropologists who typically downplay the role of biological (evolutionary) factors in emotion (e.g., Mead, 1975).

> [n]early twenty years ago, in reviewing the previous thirty years of research on how observers in Western cultures judge the emotion shown in facial expressions, Ekman, Friesen, & Ellsworth (1972) found that *every* investigator had obtained evidence for six emotions (happiness, surprise, fear, sadness, anger and disgust combined with contempt). Fifteen years later, reviewing subsequent research on facial expression with the further requirement that there be *universality*, Fridlund, Ekman, and Oster (1987) reaffirmed this listing. In the past few years there has been but one addition, some evidence and argument about distinguishing contempt from disgust.... For now it is sufficient to note that there is consistent evidence, across investigations, of universal facial expressions for at least five emotions. More research is needed to resolve questions about whether there are three to four more. (pp. 550-551)

Ekman and Friesen (1975) viewed each of the basic emotions as a *family* of related states rather than a single affective state. Ekman (1992b) states that: "[e]ach member of an emotion family shares certain characteristics, for example, commonalities of expression, in physiological activity, in nature of the antecedent events which call them forth, and perhaps also in the appraisal processes" (p. 172). He adds that: "[t]hese shared characteristics within a family differ between emotion families, distinguishing one family from another" (p. 172). Izard (1977) has also suggested that each of the ten primary emotions he identified represents a unitary emotional complex that is characterized by a different pattern of functional behavior, expressive parameters, neurophysiology, and phenomenology. Öhman (1999) states that:

> ecological pressures have shaped emotion systems in animals, including humans, to prepare them to deal with problems encountered in their life. From this perspective, different emotion systems have different evolutionary histories and are better viewed as independent than as parts of a general domain of emotion. In other words, rather than expecting a generalized mechanism of emotion[,] the output of which accounts, for example, for happiness, anger, sadness, fear and disgust, one should expect to find different mechanisms behind different emotions. (p. 337)

Ekman (1992b) holds that nine characteristics distinguish basic emotions: (1) *distinctive universal signals*; (2) *presence in other primates*; (3) *distinctive or emotion-specific physiology*; (4) *distinctive universals in antecedent events*; (5) *coherence among emotional response systems*; (6) *quick onset*; (7) *brief duration*; (8) *automatic appraisal*; and (9) *unbidden occurrence*. These factors clearly point to a perspective which stresses the biological and phylogenetic basis to emotion. A slightly augmented list appears in Ekman

(1999) which includes: (a) *distinctive appearance developmentally*; (b) *distinctive thoughts, memories, and images*; and (c) *distinctive subjective experience* and excludes aspect (5) suggested in Ekman (1992b). Moreover, Ekman (1999) adds that: "I do not think any of the characteristics should be regarded as the *sine qua non* for emotions .... I do not allow for non-basic emotions. All the emotions which share the characteristics I have described are basic" (pp. 56-57). Many findings have been accumulated with respect to the physiology (see Levenson, 1992) and the expression of emotion (see Ekman, 1993, 1994; Izard, 1994) which suggest meaningful and measurable differences among basic emotions. Nevertheless, comparatively little research has been undertaken with respect to the duration, frequency, and decay time of each discrete emotional state (Fridja, 1986; Malatesta-Magai & Culver, 1991).

The evolutionary theories proposed by Plutchik (1980a, b, 1984) and Shaver (Shaver, Schwartz, Kirson, & O'Connor, 1987; Shaver, Wu, & Schwartz, 1992) offer a related prototypical perspective on emotion. Both theories are based on the assumption that prototypical reactions (e.g., emotions) to environmental stimuli are common to all human beings and are thus biologically determined. Accordingly, Plutchik (1984) argued that evolutionary processes have resulted in different emotions which serve to provide differing responses to a variety of "functional requirements"(p. 201) imposed by the environment. Earlier, Plutchik (1962,1980a, b, c) proposed that each of eight basic emotions represented a prototypical adaptive reaction. Other emotions were said to stem from or be blends of these eight basic emotions. Differences in intensity were presented as an important dimension of variation among emotions. In Shaver's view, prototypical emotions are conveyed by language across cultures and there is a convergence in how basic emotions are represented across cultures. In this perspective, basic emotions are viewed as *action tendencies* which result from various appraisals. As in some of Plutchik's studies, Shaver et al. (1987) asked subjects in the U. S. to categorize a wide variety of emotion words based on perceived similarity. They found that *love, joy, surprise, anger, sadness,* and *fear* may be viewed as basic categories of emotion and that within each of these six emotions there are other emotions that may ascribed to a subordinate level. In a subsequent study, Shaver et al. (1992) replicated their earlier results across three cultures. Despite its focus on antecedent appraisal,

a clear Darwinian perspective underlies this theory. Shaver et al. (1992) argue that:

> in every culture there are at least a few universal patterns of appraisal (evaluations of events in relation to concerns) associated with patterns of action readiness (which often reveal themselves in visible expressions and actions) .... To the extent that certain emotional syndromes are biologically determined and central to social life, they should be evident to people around the world. (p. 179)

Similarly, Fridja (1986) has proposed a functionalist theory which also includes elements of cognitive/appraisal theories and prototype theories of emotion. Fridja (1986) argues that emotions are associated to *states of action readiness* which, in turn, can include *activation/inhibition states* and *action tendencies*. This aspect of the theory is clearly Darwinian. Examples of activation and inhibition states include *exuberance* and *apathy*. Action tendencies are presented as evolved phenomena designed to provide responses to environmental conditions. A wide array of action tendencies is proposed (see also Davitz, 1969). Different action tendencies are said to be elicited by different appraisals of emotion eliciting events (Fridja, 1986) and to provide ways by which emotional states can be differentiated (Fridja, Kuipers, & ter Schure, 1989). Action tendencies can involve facial expressions and various physiological responses such as increased heart rate. For instance, it is argued that the action tendency *approach* serves the particular function of allowing consummatory behavior and is associated with the emotion *desire* whereas the action tendency *avoidance* serves the function of *protection* and is associated with the emotion *fear*. Fridja et al. (1989) provide a summarized account of Fridja's (1986) theory:

> emotions involve states of action readiness elicited by events appraised as emotionally relevant; different states of action readiness are elicited by different appraisals. Events are appraised as emotionally-relevant when they appear to favor or harm the individual's concerns: his or her major goals, motives, sensitivities (the appraisal process is thought to be nonconscious). States of action readiness may avail themselves, in their execution, of certain prewired action patterns such as facial expressions and gross behavior modes (flight, attack) and of learned behaviors. Autonomic arousal can be considered the logistic support of certain variants of action readiness. *State of action readiness* is defined as the individual's readiness or unreadiness to engage in interaction with the environment. Readiness may consist of action tendency, that is, readiness to engage or disengage from interaction with some goal object in some particular fashion ... approach and attentional interest, flight and withdrawal, and opposition and attack are modes of manifest behavior resulting from these impulses. A state of action readiness may also consist of a general readiness or

> unreadiness to engage in interaction with the environment, forms of which may be called *activation states*, and states of inhibition .... (p. 213)

Fridja et al. (1989) asked subjects to report on emotional states and for each experience, to provide ratings on appraisal dimensions[8] and action readiness modes. They found that emotional experiences did indeed involve both (a) antecedent appraisal and (b) action tendency awareness. They add that: "[e]motion names refer to structures of these constituents, in which the relevance and criteriality of the two kinds of constituent differ from name to name" (p. 225). Mandler (1992) has suggested that Fridja's (1986) theory is perhaps too broad:

> Fridja arrives at a definition [of emotion] that is broad indeed. Fridja (1986, p. 473) describes emotion as a set of mechanisms that ensure the satisfaction of concerns, compare stimuli to preference states and by turning them into rewards and punishments generate pain and pleasure, dictate appropriate action, assume control for these actions and thereby interrupt ongoing activity, and provide resources for these actions. The question is whether such mechanisms do not do too much, and leave nothing in meaningful action that is not emotional. That may be Fridja's intention, but it leaves the topic of emotion burdened with supporting practically all of psychology. (p. 101)

Another influential and classic perspective which somewhat deviates from that of Darwin and is apparent in many contemporary theories of emotion is the Jamesian. James' work on emotion revolved around "how best to conceive of the relationship between bodily changes and the experience of emotion" (Cornelius, 1996, p. 135). Like Charles Darwin, William James (1884, 1890) held that: (a) emotion was derived from cortical and neo-cortical activity; (b) emotion had evolved; (c) it was necessarily accompanied by a corresponding expression; (d) emotions had an adaptive function; and (e) affective processes require no direct cognitive involvement. However, James reversed the Darwinian notion that emotions were automatically triggered by the perception of an object. James (1884) argued that different stimuli lead to different bodily responses and that the experience of emotion is equivocal to the perception of bodily responses (e.g., increased heart rate, sweaty palms,

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[8] It is important to note that Fridja's (1986) theory puts some emphasis on cognitive appraisal and thus also overlaps with the class of theories discussed in subsequent sections. However, its clear Darwinian content has compelled us to classify it as a somatic theory of emotion. Difficulties in categorizing theories of emotion are common (Cornelius, 1996).

etc.): "bodily changes follow directly the perception of the exciting fact, and ... our feeling of the same changes as they occur is the emotion" (pp. 189-190). Elsewhere, James (1890) held that the essence of emotion was *feeling*[9]: "every one of the bodily changes whatsoever it be, is FELT acutely or obscurely, the moment it occurs" (p. 1066). In another often cited statement, James (1890) said that: "[i]n all cases of intellectual or moral rapture ... unless there be coupled a bodily reverberation ... unless we actually laugh ... thrill ... or tingle ... our state of mind can hardly be called emotional at all" (pp. 470-471). In other words, situations produce autonomic[10], expressive, postural, and adaptive behaviors which are, in turn, the source of emotional experience (see Figure 2b). In particular, James (1890) argued for *autonomic specificity* or that particular patterns of autonomic states accompany and differentiate among emotions. Elsewhere, James (1884) indicated that the peripheral physiological changes (or somatovisceral afference) which result in discrete emotions have three sources: the skin, the muscles, and the viscus.

Another divergence from the Darwinian perspective is evident in James' (1890) views on basic emotions. James (1890) argued that emotion terms, as they occur in natural language, are too heterogeneous for scientific inquiry. Furthermore, he found that attempts at sorting emotion labels into meaningful categories were useless because these categorizations would vary with respect to the predispositions of the individual making the distinctions (see Stein & Oatley, 1992). In other words, James (1890) argued that categorization attempts would be arbitrary. According to Mandler (1984), this observation

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9 The view that emotion is *feeling* implies that emotions cannot be unconscious or involve unconscious experience (see Clore, 1994; cf. Öhman, 1999). It is also somewhat in contrast to perspectives which view emotion as a multicomponent process where the subjective feeling state has objective concomitants such as expressive gestures, physiological arousal, etc. (see Averill, 1980c; Izard, 1991; Lang, 1988; Scherer, 1984a). Intercorrelations typically much below unity among measures of these different components suggest that they are rather distinct (Leventhal & Scherer, 1987; Lewicki, 1986; MacLean,1975; Öhman, 1986; Parrott & Hertel, 1999).

10 A description of the role of the ANS in emotion was presented in Footnote 2.That ANS (physiological) activity is involved in emotion has been known since antiquity. Reference to the ANS appears in the writings of Hippocrates and Aristotle (see Zajonc, 1998). The behavioral, physiological, and internal feeling state components of emotion appear to correlate only imperfectly (Dimberg, 1990a; Lang, 1978, 1988; Leventhal & Scherer, 1987; Lewicki, 1986; MacLean, 1975; Öhman, 1986).

applies to the variations in the lists of basic emotions proposed by contemporary emotion theorists such as Ekman (1982, 1992b, c), Izard (1977), as well as Plutchik (1980a, b). It also applies to a variety of contemporary studies which have attempted to provide semantic categories of emotion and related terms (see Zajonc, 1998). The perspective which presents some emotions as unitary complexes and thus basic is therefore associated to Darwin rather than James who had clearly rejected this notion (see Mandler, 1992).

The sequence proposed by James (1884, 1890) which results in felt emotion begins with the unambiguous[11] perception of a stimuli: we sense something and we can identify what it is. Although cognition was not emphasized in James' work, it appears implicit to his theory[12] (Ellsworth, 1991). The manner in which latter aspects of this sequence result in discrete emotion elicitation is rather counter-intuitive because it proposes that bodily states precede emotional experience rather than the reverse (Cacioppo, Berntson, & Klein, 1992; Parkinson, 1987). Specifically, James (1890) argued that: "the bodily manifestations must first be interposed" between the eliciting event and emotional expression (p. 1067). In accordance with James, individuals do not smile because they are happy but they are happy because they smile; or they do not frown because they are angry but they are angry because they frown (Laird & Bresler, 1990, 1992). Bagozzi et al. (1999) have stressed that: "it is important to note that James reserved this interpretation for what he termed the coarser emotions (e.g., 'grief, fear, rage, love'), which involve strong body perturbations; he was less clear about what he termed the 'subtler' emotions" (p. 191). These coarser emotions have "a

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11 The word 'unambiguous' is stressed here because some theories of emotion, in particular that of Schachter and Singer (1962), suggest that the perceptual stimulus is ambiguous (i.e., general arousal) and that cognition intervenes in the emotion process in a search of the environment in an attempt to find a label for the stimulus. In this perspective, one feels arousal and then searches the environment for a potential cause. This provides a label for the arousal one feels.

12 Similarly, a non-elaborated perspective on cognition appears in Darwin (1896) who downplayed the role of cognition in favor of biological determinants in the coding and the decoding of emotional expression. For example, he claimed that "so many shades of expression are instantly recognized without any conscious process of analysis" (p. 359). Pre-attentive or unconscious processing is discussed in some length in Öhman (1999) and is fundamental to the notion of *preparedness* (see Seligman, 1970) which implies a hardwired predisposition to respond to particular stimuli (see Dimberg, 1986, 1987). Pre-attentive perception also plays a fundamental role in Zajonc's (1980, 1984) perspective on cognition and emotion.

clear biological resonance" (Scheff, 1984, p. 146). Additional examples of this proposed sequence appear throughout James' (1890) writings. For instance, James (1890) believed that if one walks alongside another and mimics that person's gait, this will reveal how that person feels. Elsewhere, James (1884) argued that one knows that one is terrified by the bear because one is running away from it. James' (1884, 1890) perspective echoes recent neurophysiological evidence discussed in LeDoux (1996) where it is held that: "the feeling of being afraid results when we become consciously aware that an emotion system in the brain, like the defense system, is active" (p. 268). James (1884) emphasized conscious psychological processes. By suggesting that emotion is *feeling*, James (1884) clearly stressed the conscious nature of emotion. However, unconscious emotional phenomena are clearly apparent in recent research (see Öhman, 1999).

James' work is embodied in what has come to be known as the James-Lange[13] theory of emotion (Lange & James, 1922). The James-Lange theory holds that each emotion is concomitant with a distinctive pattern of physiological reactivity or arousal and that feelings are the result and not the cause of emotional behavior. Accordingly, Cacioppo et al. (1992) state that:

> this line of theorizing specifies that distinct emotional feelings arise from the perception of discrete and unambiguous sensory information transmitted through the somatovisceral system just as assuredly as distinct visual percepts ... (p. 65)

In varying degrees, the Jamesian perspective has been incorporated into many contemporary conceptions of emotion (Izard, 1972, 1977, 1990; Laird, 1974, 1984; 1977; Laird & Bresler, 1990, 1992; Lanzetta, Cartwright-Smith, & Kleck, 1976; Levenson, 1992; Levenson, Ekman, & Friesen, 1990; Leventhal, 1980; Schachter & Singer, 1962; Tomkins, 1962, 1963, 1982;

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[13] According to Cornelius (1996, pp. 65-66), the Danish psychologist Carl Lange independently published a similar account of emotion shortly after James published his work. Both are thus given credit for presenting a psychophysiological perspective on emotion which is considered *peripheralist* in that emotion is closely associated to the viscera. Generally, the James-Lange perspective holds that different bodily states result in different emotions. This view was later challenged in work which suggested a *centralist* perspective based on the notion of undifferentiated arousal (see Cannon, 1927; Schachter & Singer, 1962). One difference between James' and Lange's accounts rests in what constitutes emotion. For Lange, emotion was bodily change. The feeling of bodily change was secondary and consequential whereas for James, emotion was conscious visceral feeling and bodily change taken together and simultaneously (see Hillman, 1964).

Zajonc, 1985). For instance, Tomkins (1962) defined emotion as facial response and clearly suggested that awareness of the response was tantamount to awareness of the emotion. On the other hand, some have taken issue with James' explanation of "What is an emotion?" (e.g., Fridlund, 1992a; Mandler, 1984, 1992; Ortony & Turner, 1990). For instance, Mandler (1992) argued that James "was probably wrong in assigning the feelings of a particular emotion to a specific concatenation of visceral and voluntary muscle activities" (p. 99).

Some researchers who have subscribed to James' peripheralist theory have relied on self-reports to show differential levels of arousal for each basic emotion. For instance, Epstein (1983a) asked subjects to keep records of their most intense daily emotions for a period of one month. He found that specific states of arousal were associated with different basic or primary emotions. In an earlier study, Davitz (1969) had subjects check items in a list that best described their current emotional experiences. Clear differences in arousal were demonstrated for fear, anger, sadness, joy, and love with the exception of the love-joy pair which, he argued, were highly similar. Other researchers have relied on psychophysiological methodologies. A classic study of emotion differentiation was carried out by Ax (1953) in which anger and fear were differentiated by four physiological indicators. More recently, Ekman and colleagues have repeatedly reported differences in ANS activity among emotions such as anger, fear, disgust, sadness, and happiness (see Ekman, Levenson, & Friesen, 1983; Levenson, Ekman, & Friesen, 1990; Levenson, Ekman, Heider, & Friesen, 1992). The instrumentation used in these studies was designed to measure various channels of physiological information. For instance, Levenson et al. (1992) used a specially designed polygraph[14] along with other instruments to measure the following battery of physiological indicators: (a) heart rate, (b) finger temperature, (c) skin conductance, (d) finger pulse transmission time and finger pulse amplitude, and (e) respiratory period and respiratory depth. This array of indicators served to assess all major ANS functions.

Throughout these studies, heart rate has emerged as the indicator which discriminates best among emotions. For instance, Ekman et al. (1983) found that fear, anger, and sadness

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[14] Polygraphs are also referred to as *lie detectors*. They are used to measure different physiological reactions to stimuli with multichannel graphical outputs.

displayed comparable elevations in heart rate with respect to happiness, disgust, and surprise. However, overall, the evidence which has been accumulated on autonomic differentiation of emotions or emotion-specific autonomic patterns remains less than consistent (Dimberg, 1990a). Zajonc and McIntosh (1992) have remarked that full autonomic differentiation of happiness, sadness, anger, fear, surprise, and disgust remains inconsistent even if one only takes into account the rather exceptional results reported by Ekman, Levenson, and colleagues over the last decade (i.e., 1982-1992). On the other hand, Berntson, Cacioppo, & Quigley (1991) noted that the apparatuses/measures that were used across studies to detect distinct patterns of autonomic activity which presumably underlie discrete emotions were perhaps not sophisticated enough to identify the distinct signatures of each emotion. In addition, Dimberg (1990a) suggests that the efficacy of ANS measures appears to depend on the amount of discomfort experienced by subjects.

Another important contribution by the Jamesian school of thought was the *facial feedback hypothesis* or that facial expression via muscular action determines felt emotion. James (1884) had argued that emotional experiences can be stimulated by mimicking their characteristic expressions. A variety of contemporary facial feedback theories have been proposed which suggest that emotional expression is an important determinant of subjective feeling. For instance, Tomkins (1962) suggested that feedback from facial muscles plays a major role in differentiating various emotions. This notion was also incorporated into the work of Allport (1924), the early work of Izard (1971, 1977), as well as that of Ekman (see Ekman, Friesen, & Ellsworth, 1972). Zajonc, Murphy, and Inglehart (1989) found that two versions of the facial feedback hypothesis can be identified:

> For example, according to Rutledge and Hupka (1985), the strong version considers facial feedback "sufficient to induce and specify emotion," whereas the weak version calls only for an intensification of any emotion that was previously elicited by other causes. This latter form of the weak version dates to Darwin (1955) [1872], who proposed that expression intensifies emotion, whereas suppression "softens" it (p. 22) .... Winton's (1986) definition of the strong version of facial feedback is the same as that of Rutledge and Hupka (1985). However, he attributed to the weak version more than simply the capacity of intensifying an otherwise elicited emotion. Even at its weakest, facial expression, according to Winton has the capacity of producing global hedonic effects, that is, feelings of positivity or negativity, liking or disliking, and

> tendencies of avoidance or approach, independently of what emotion is present at the time. Both strong and weak versions of the facial feedback hypothesis hold, nevertheless, that subjective feeling is a consequence of facial movement. (p. 396)

Much evidence has been accumulated which indicates that facial feedback or *facial efference* does indeed determine emotional experience (e.g., Adelman & Zajonc, 1989; Ekman, Levenson, & Friesen, 1983; Kleinke & Walton, 1982; Laird, 1974, 1984; Laird, Wagener, Halal, & Szeda, 1982; Levenson, Ekman, & Friesen, 1990; Levenson, Ekman, Heider, & Friesen, 1992; Manstead, 1988; McIntosh, 1996; Rhodewalt & Comer, 1979; Zajonc, Murphy, & Inglehart, 1989). For instance, Laird (1974) found that: "different patterns of expressive activity of the body precede and cause in some way qualitatively different subjective experiences" (p. 476). Later, Laird (1984) provided a review of facial feedback studies and concluded that the hypothesis was overwhelmingly supported. Similarly, Adelmann and Zajonc (1989) reviewed the findings that had accumulated over the 1980s and concluded that the facial feedback hypothesis appeared confirmed for at least a small number of basic emotions. Manstead (1988) has also provided a review of findings and concluded that facial action influences emotion. More recently, Stepper and Strack (1993) have acknowledged that feedback from the face and body remain an important determinant of felt emotion but have also noted the importance of appraisals of a person's environment as a determining factor.

Facial efference was used by Ekman and colleagues to generate ANS activity in subjects. A study that had raised much controversy was one in which Ekman, Levenson, & Friesen (1983) had actors perform a *directed facial action task* which required them to voluntarily contract specific facial muscles. Ekman et al. (1983) assumed that this would induce ANS activity (this study was also discussed above in relation to differentiated ANS activity). The tasks involved mimicking the facial expressions associated with six basic emotions (happiness, anger, sadness, fear, surprise, and disgust) but did not involve generating these emotions. For instance, so as to produce the expression of the emotion *fear*, subjects were sequentially instructed to raise their brows, pull them together, raise the upper eyelid, tighten the lower eyelid, and finally, to stretch their lips horizontally. Simultaneously, researchers monitored physiological (ANS) indicators of emotion (heart rate, skin

temperature, etc.). It was found that significant differences appeared in the indicators with respect to six emotions. The results of this initial study were then replicated by using the Stanislavski Method for actors which requires an actor to generate an emotion by reliving a past emotional experience prior to appearing and delivering the emotion on stage. A battery of more recent studies has shown a convergence of findings corroborating those of Ekman et al. (1983) (for reviews, see Levenson, Ekman, & Friesen, 1990; Levenson, 1992). McIntosh (1996) suggests that the most consistently produced physiological changes are "lower heart rate (HR) increases during the disgust facial pattern than during anger, fear, and sadness, and larger increases in finger temperature during the anger configuration than in fear ..." (p. 129).

On the other hand, some researchers have questioned the interpretation of the data which has been accumulated and the general importance of the facial feedback effect on emotion (Buck, 1984; Fridlund, 1994; Matsumoto, 1987). For instance, Matsumoto (1987) performed a meta-analysis of studies of facial feedback and found that there was only a modest effect. Zajonc et al. (1989) suggested that facial efference is in all likelihood an important determinant of subjective feeling states for the more basic emotions. However, they also remarked that with respect to more complex emotions such as pride or jealousy, "most of the variance derives from a prior cognition" (p. 396). Rutledge and Hupka (1985) have identified over 12 methodological artefacts in facial efference studies. In particular, they argued that subjects tended to infer the emotions that they should be feeling under experimental manipulations. Soon after, Strack, Martin, and Stepper (1988) managed to design an experiment where subjects could not infer a connection between the emotion they expressed and that which they were "supposed" to feel. They found that the facial feedback hypothesis was supported.

In an oft-cited study, Tourangeau and Ellsworth (1979) reported findings which invalidated the *facial feedback hypothesis*. Specifically, they found that when subjects were exposed to emotion-eliciting films, their facial expressions had no bearing on their self-reported emotional states. This finding rejoins other reported results which suggest that the expressive, the internal feeling state, and the physiological components of emotion represent

distinct or rather uncorrelated response systems (see Leventhal & Scherer, 1987; Öhman, 1986). Nevertheless, this finding has spurred much controversy and criticism (e.g., Izard, 1981, 1984; Tomkins, 1981a). Laird (1984) indicated that in all likelihood Tourangeau and Ellsworth's (1979) contradictory finding did not occur due to methodological considerations:

> The most obvious difference between Tourangeau and Ellsworth's procedures and those of all of the other studies is whether the comparisons were within or between subjects. Tourangeau and Ellsworth deliberately chose to run subjects in only one expression condition in order to minimize the likelihood that subjects would become more aware of the experimenter's hypotheses .... In short, a possible explanation of the discrepancy between Tourangeau and Ellsworth and the other studies is that the positive results were all due to artefact .... Fortunately, a number of the more recent studies provide an indirect but much more compelling argument against the possibility of subject awareness and experimenter demand (p. 910)

Instead, Laird (1984) favored another explanation:

> A strong possibility is that individual differences in the effects of expressions on emotional experience may be the cause. If Tourangeau and Ellsworth's sample contained a relatively high proportion of subjects who were more responsive to situational cues, then the effects among subjects more responsive to self-produced cues might have been obscured in the aggregate. (p. 913)

McIntosh (1996) provides an exceptional review of the multitude of studies done on the facial feedback hypothesis. This review is framed within four questions which represent "four common general proposals related to facial feedback" (p. 123): (1) Does facial configuration *correspond* to emotions?; (2) Does facial movement *modulate* emotions in the presence of other emotional stimuli?; (3) Can facial action *initiate* emotions, even with no other emotional stimuli present?; and (4) Is facial action *necessary* for the presence of emotions? The first proposition holds that facial expressions covary with emotions. Evidence based on observed facial displays and facial electromyographic[15] (EMG) studies tends to

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[15] Facial electromyography (EMG) consists in placing highly sensitive electrodes over facial muscle groups associated with the expression of particular emotions. This technology can detect unconscious and very slight or subtle facial muscle action that may not be perceivable by the naked eye (see Cacioppo, Berntson, & Klein, 1992; Cacioppo, Bush, & Tassinary, 1992; Dimberg, 1990a; Fridlund, Schwartz, & Fowler, 1984). It is important to note that facial EMG is concerned with the expressive component of emotion while polygraph technology assesses responses of the physiological component of emotion (e.g., any ANS indicator such as heart rate). These two components are not necessarily related in a consistent fashion. They are usually taken to represent distinct responses to stimuli (Öhman, 1986). For instance facial action is not necessarily accompanied by changes in ANS

confirm the covariation hypothesis (e.g., Buck, Savin, Miller, & Caul, 1972; Ekman, Friesen, & Ancoli, 1980; Cacioppo, Martze, Petty, & Tassinary, 1988; Cacioppo, Petty, Losch, & Kim, 1986; Dimberg, 1988b). In addition, McIntosh (1996) argues that these studies provide strong support for a dimensional version of the proposed correspondence in that "the face is associated with degree of positive and negative affect only" (p. 124) (see also Smith et al., 1996). On the other hand, evidence of a categorical version of the proposed correspondence has reportedly been inconsistent (e.g., Brown & Schwartz, 1980; Fridlund, Schwartz, & Fowler, 1984; Tourangeau & Ellsworth, 1979).This may be due to the great number of contexts for and potential antecedents to facial expressions (Tassinary & Cacioppo, 1992). For instance, Fridlund (1994) suggests that facial displays are not expressions of emotion as suggested by Ekman and Izard but are rather a function of social context or motive. Many other studies based on the behavioral ecology perspective suggest audience effects in facial displays (e.g., Chovil, 1991; Kraut & Johnson, 1979). These findings generally discount the widely held notion among Darwinian psychologists such as Ekman and Izard that facial expressions reflect internal feeling states or a one-to-one correspondence between the two response components.

The proposition that facial movement modulates (changes) emotion suggests that "facial action can affect emotions during ongoing emotional experiences" and this modulation may be with respect to intensity of the felt emotion or the "quality of the experience" (McIntosh, 1996, p. 126). Past reviews have suggested that this proposition is correct (e.g., Adelmann & Zajonc, 1989; Manstead, 1988). Evidence which lends credence to this proposition has stemmed from studies in which subjects were first directed to change their facial expressions muscle by muscle and the researchers then proceeded to demonstrate subsequent changes in felt emotion (e.g., Laird, 1974; Rutledge & Hupka, 1985). As discussed above, Tourangeau and Ellsworth (1979) provided counter evidence for this proposition. Hess, Kappas, McHugo, Lanzetta, and Kleck (1992) demonstrated that subjects who were instructed to only generate an inner feeling took longer to do so than subjects who

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activity (see Dimberg, 1990a).

were instructed to generate an inner feeling accompanied by the display of a corresponding facial expression. These results suggest that facial displays facilitate the generation of emotion. So as to circumvent many of the experimental demand characteristics associated with past studies (see Buck, 1980; Fridlund, 1994; Manstead, 1988), Strack, Martin, and Stepper (1988) attempted to mask their subjects' expressions of emotion by having them perform such tasks as holding a pen between their teeth (smile-like expression) or lips (smile inhibition). Cartoons were subsequently rated more humorous by subjects who simulated a smile than by those who suppressed smiling. Similar unobtrusive manipulations along with confirming results appear in Larsen, Kasimatis, and Frey (1992) as well as in Zajonc, Murphy, and Inglehart (1989). Criticisms of these studies appear in Fridlund (1994).

That facial action can initiate emotions has often been thought of as a stronger hypothesis than modulation. However, "initiating an emotional state when none is present is not necessarily a more powerful effect than altering an extant state elicited by other stimuli" (McIntosh, 1996, p. 128). Many studies have demonstrated initiation (e.g., Davidson, 1992; Duncan & Laird, 1977; Duclos, Laird, Schneider, Sexter, Stern, & Van Lighten, 1989; Ekman, Levenson, & Friesen, 1983; Hess et al., 1992; Laird, Cuniff, Sheehan, Shulman, & Strum, 1989; Levenson, Ekman, & Friesen, 1990; Zajonc & McIntosh, 1992; Zajonc et al., 1989). For instance, Duclos et al. (1989) had subjects contract the particular muscles involved in anger, sadness, fear, and disgust and subsequently asked them to rate their subjective feeling states on a variety of emotion labels. Fear ratings emerged significantly higher after the fear expression. However, disgust and anger remained undifferentiated from each other but were from sadness and fear. Experimental demand concerns are relevant to these studies (McIntosh, 1996). The study by Ekman, Levenson, and Friesen (1983) reviewed above constitutes evidence that facial action can initiate emotion. Because of its reliance on physiological measures, its results were less likely to be the product of demand effects. Nevertheless, subsequent replication indicated a drop in the number of changes in physiological indicators which reliably differentiated among emotions (e.g., Zajonc & McIntosh, 1992).

The final proposition holds that facial action is necessary for emotion. McIntosh (1996) states that: "[a]lthough it has tended to be thought of as indicating that facial movement is a necessary cause, it may also refer to facial changes as being an inextricable component of emotions, without such expressions themselves being causal" (p. 130). The latter form of this hypothesis has been largely disconfirmed by evidence gathered from people with facial paralysis (see Fridlund, 1994). Thus facial feedback appears sufficient but not necessary for emotional experience. That some research clearly positions itself as causal is evident in Kappas, McHugo, and Lanzetta (1989) where it is stated that: "[c]ovariation among component subsystems of emotion is well known, and studies of the facial feedback hypothesis have examined the *causal* role that modulation of facial expression has on other components of emotional experience" (p. S37). However, as in the case of appraisal theories[16] of emotion (see Parkinson, 1997), evidence in fact appears to be conceptual and correlational rather than causal. Causality is presumed and suggested because of the temporal sequence of events in typical laboratory studies. Specifically, facial expressive tasks are undertaken prior to the measurement of changes in other components of emotion (e.g., Levenson et al., 1990). More generally, much evidence suggests bidirectionality in components of emotion (Parkinson, 1987; Zajonc, 1998). Researchers have also tended to view emotion as a multicomponent process which includes conscious antecedent appraisals, subjective feelings, expressions, action tendencies, instrumental behaviors, and patterned physiological changes (Fischer, Shaver, & Carnochan, 1990; Fridja, 1986; Scherer, 1984a). For some, no single element, not even conscious awareness (see Öhman, 1999), is necessary for emotion to occur (Averill, 1980a, b). Laird and Bresler (1992) hold that: "all components of the emotional episode are ordinarily generated, more or less independently, by some central mechanism, but activation of any one may increase activity of any other" (p. 49). This view is suggestive of concomitance and interaction rather than causality. As stated earlier,

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16 Appraisal theories generally hold that some form of cognitive appraisal or judgment precedes emotion (see Scherer, 1993). The strongest statement of this hypothesis appears in Lazarus (1991a) where antecedent appraisal is considered *necessary* for emotion to occur. However, Parkinson (1997) argues that the evidence accumulated to date indicates that the "true" relationship is weaker in that it is in fact conceptual and correlational. Hence, he suggests that appraisal is only *sufficient* and not necessary to induce an emotion.

this concomitance is not perfect (see Dimberg, 1990a; Lang, 1978, 1988; Leventhal & Scherer, 1987; Lewicki, 1986; MacLean,1975; Parrott & Hertel, 1999).

McIntosh (1996) suggests that: "[p]art of the confusion in the literature [on facial feedback] is probably due to different mechanisms contributing differentially to varying findings" (p. 137). He adds that: "[t]here may be different mechanisms for categorical[17] vs. dimensional effects, for physiological vs. subjective effects, and for the combinations of these" (p. 137). Izard (1990) proposes that four different models of how expressive behavior influences emotional experience can be identified. He states that:

> [s]ome investigators have explained findings that confirm the hypothesis as direct effects of sensory feedback from receptors in the facial muscles and skin (e.g., Lanzetta, Cartwright-Smith, & Kleck, 1976). Laird (1984), however, explained the results of his experiments as a function of self-perception .... Leventhal (1984) attributed the primary role in emotion activation to a central motor mechanism, but he ascribed a role to expressive-behavior feedback in that he sees it as making a contribution to the guidance of central activity. Finally, Zajonc and his colleagues (1985; Zajonc, Murphy, & Inglehart, 1989) have presented evidence indicating that expressive behavior exerts its influence on affective experiences by regulating blood flow in the brain. (p. 488)

Like James and Darwin, the physiologist Walter Cannon (1927, 1931) proposed another well known somatic theory of emotion (see Figure 2c). Cannon (1927) viewed the high levels of arousal associated with fear and anger as a way to prepare the organism for fight or flight in emergency situations. Cornelius (1996) suggests that Cannon took on the role of James' nemesis and was "the scientist most responsible for the widespread abandonment of the [Jamesian] theory from the 1930s on" (p. 70) until the 1970s and 1980s when it was apparently rediscovered. Like Darwin and James, Cannon held that affective

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[17] Categorical classifications of emotion involve semantic categories such as *anger*, *sadness*, *happiness*, etc. This approach is closely related to the notion of *basic emotions* (e.g., Ekman, 1992a; Izard, 1977) or to that of prototypical emotions (Plutchik, 1980a, b, 1984). On the other hand, dimensional schemes have attempted to show interrelationships among emotions based on two or three underlying dimensions (e.g., Russell, 1979, 1980). *Valence* and *arousal* have emerged as two most important underlying dimensions of affect (Russell, 1997; Russell, Weiss, & Mendelsohn, 1989). The dimensional version of the facial feedback hypothesis refers to the valence dimension or the extent to which an emotion is pleasant or unpleasant (McIntosh, 1996). Across studies, this dimension has consistently accounted for the largest proportions of variance (see Feldman, 1995; Mayer & Gaschke, 1988).

processes did not require direct cognitive involvement. However, Cannon (1927) strongly objected to James' (1884) view that visceral reactions[18] were the source of differentiated emotional experience (i.e., autonomic specificity) by pointing out that autonomic phenomena were too slow, too insensitive, and too undifferentiated. Precisely, Cannon (1927) argued in favor of *general arousal*[19]. Parkinson (1987) provides a detailed account of Cannon's objections to the Jamesian perspective and points out that Cannon (1927) held that: (a) "the parameters of peripheral physiological response in emotion [i.e., James' visceral reactions] did not correspond to the known characteristics of emotional reaction"; (b) "[c]hanges occurred too slowly, in relatively insensitive regions of the body"; (c) "artificial induction of these changes was not sufficient in itself to produce emotion"; and (d) "the changes accompanying a wide variety of emotional experiences were found to be broadly similar" (p. 59) or that visceral reactions were not distinct enough to allow discrimination of subjectively different emotional states. In other words, Cannon disagreed with the notion that ANS activity was patterned and advocated the plasticity or malleability of autonomic arousal (i.e., undifferentiated autonomic activity). Moreover, he argued that visceral reactions were rather part of a "system maintaining homeostasis in response to fluctuations in energy output demanded by a varying environment" (Leventhal, 1979, p. 5) and that they were "symptoms rather than causes of emotion" (Parkinson, 1987, p. 59). Furthermore, Cannon (1929, 1931) argued that subjective feelings were generated by interactions between the thalamus and the cortex. A comparative account of Cannon's emotion process is offered in Petri (1986):

> Cannon believed that emotion is associated with activation of the SNS [sympathetic nervous system]. He argued that the control of emotion is based on a brain structure

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[18] The term *visceral reactions* seems to have been used quite broadly by James and Lange and appears synonymous to the term *bodily changes* which was used by Cannon. These changes are placed within the hardware of the nervous system. The viscera are connected to the sympathetic branch of the ANS and "react as a whole in situations involving acute stress or danger" (Cornelius, 1996, p. 223).

[19] The notion of *general arousal* or that ANS activity is nonspecific has been central not only to Cannon's (1927, 1931) perspective on emotion but also to those of Mandler (1975) and Schachter and Singer (1962). Arousal regulates the *intensity* of physiological and behavioral reactions and therefore remains an important aspect/dimension of investigations of emotion (see Cacioppo, Uchino, et al., 1992). Larsen and Diener (1987) have proposed that affect intensity is an individual difference characteristic.

called the thalamus, which receives information from the various senses throughout the body .... Cannon believed that various emotional response patterns (e.g., anger and fear) are activated by the thalamus when the external sensory information it received is relayed to the cortex. He argued that the emotional behaviors activated by the thalamus are held in check by the cortex .... When the cortex receives appropriate sensory information, it releases the thalamus to trigger emotional responses. Cannon thought the thalamus was also responsible for SNS activation leading to the bodily changes considered so important by the James-Lange theory. Thus, Cannon saw the expression of emotion as simultaneous with activation of the body, not the result of it ... (p. 59)

1.2.2 Cognitive Theories of Emotion: The Primacy of Appraisal

A differing perspective on emotion from that of somatic theories is offered by appraisal theorists who have stressed the role of cognition in initiating emotional experience and in differentiating emotional states. Like the somatic perspectives on emotion discussed above, cognitive theories typically involve the prediction/explanation of discrete emotional states (e.g., anger, happiness, sadness, etc.). Specifically, cognitive theories of emotion suggest that discrete emotions are determined by specific profiles or combinations of antecedent appraisals or judgments. In most instances, they represent functional theories of emotion in that they suggest that emotions serve adaptive functions (e.g., Fridja, 1986; Lazarus, 1968, 1991a; Roseman, 1984, 1991; Smith & Ellsworth, 1985, 1987). Hence, both the somatic and cognitive perspectives are functionalist in their accounts of emotion. However, unlike somatic theories, the emphasis of appraisal theories rests on the specification of cognitive determinants of emotions.

Most research directed at differentiating discrete emotions has been physiological (Roseman, 1984) and has thus reflected a clear Jamesian or peripheralist perspective whereby emotions are presented as equivocal to or determined by bodily changes (James, 1890). A review of these studies appears above (for example, see Epstein, 1983a). Another perspective which attempted to differentiate among discrete emotions was the behaviorist (e.g., Watson, 1919) which became dominant over the 1950s. In this view, emotion was seen as equivocal to arousal and was depicted as a dimension of behavior (e.g., Lindsley, 1951; Duffy, 1957). A clear learning theory perspective directed and pervaded the attempts of behaviorists at explaining the onset of discrete emotions (e.g., Mowrer, 1960; Watson & Rayner, 1920).

Currently, the cognitive perspective on emotion is the dominant in psychology (Bagozzi et al., 1999) in that cognitive appraisal is the most commonly proposed cause of emotion in contemporary psychology (Campos & Sternberg, 1981; Cornelius, 1996; Parkinson, 1997). Roseman (1984) argues that it is superior in explanatory power to behaviorist and physiological approaches in that:

> [t]he basic problem with a physiological approach is that *it fails to explain what starts the process*. If there are distinctive patterns of physiological response for each discrete emotion, what produces them? This question may be asked of any physiological account. What determines which profile of bodily changes will occur? What leads to one pattern of thalamic activation or neural firing rather than another? What evokes the anger face rather than the sadness face? .... A physiological approach must at least be supplemented by a theory relating bodily reactions to the situations in which they occur .... The major limitation of a behavioral approach is that *it fails to give a satisfactory account of individual or temporal differences* in emotional responses to the same event .... A cognitive approach to the causation of emotions assumes that *it is interpretations of events rather than events per se that determine which emotion will be felt*. Emotions may be physiological and behavioral responses to environmental stimuli, but stimuli as they are actively and constructively perceived by an intelligent organism processing knowledge of the world .... Taking a cognitive approach might enable the construction of coherent causal theories of emotion applicable to human beings .... After a long hiatis during which cognitions (like emotions) were banished from mainstream psychology, the cognitive approach was reintroduced by Magda Arnold and Stanley Schachter. (pp. 13-15)

Parkinson (1997) finds that "[t]he enduring appeal of the appraisal account seems partly to depend on its intuitive plausibility" (p. 62). He adds that: "[o]ur common belief is that emotions relate to considerations that matter to us, so it apparently makes perfect sense to claim that they depend upon evaluations of the personal significance of events as appraisal theorists suggests" (p. 62). Many appraisal theorists have indeed stressed the importance of personal significance as a dimension of appraisal. All suggest that some form of cognitive evaluation antecedes an affective response. In particular, Lazarus (1981, 1982, 1984a, b, 1991a) proposed that emotional response is initiated by cognition and that emotional response is essentially a continuation of the cognitive process associated with goal achievement. Furthermore, Lazarus (1984b) holds that "cognitive activity is a *necessary* as well as sufficient condition of emotion" (p. 247). A similar yet weaker causal argument underlies Weiner's (1982, 1986) work where it is emphasized that "cognitions quite typically

precede and determine affective reactions" (1982, p. 203). Elsewhere, Weiner (1986) states that:

> [t]he most embracing presumption ... is that how we think influences how we feel .... Cognitive emotion theory assumes that emotions are guided by the construal or appraisal of a situation .... Cognitions are believed to give rise to qualitative distinctions between feelings and therefore are responsible for the richness and diversity of emotional life. (p. 119)

In the annals of modern psychology, this view was first suggested by Arnold (1945, 1960). Arnold (1960) argued that the way a situation is appraised depends on past experience and the person's goals:

> [t]o arouse an emotion, [an] object must be appraised as affecting me in some way, affecting me personally as an individual with my particular experience and my particular aims. (p. 171)

Arnold's (1960) theory clearly brought to the forefront the notion that some type of perceptual-cognitive process is a necessary precursor to differentiated emotional states (see also Arnold & Gasson, 1954). In essence, this notion was introduced by Greek philosophers and is particularly apparent in the works of Aristotle (384-322 B.C.), Epictetus (50-138 A.D.), and those of Plato as well (427-348 B. C.) (see Lazarus, 1991b; Sihvola & Engberg-Pertersen, 1998; Knuutila & Sihvola, 1998). Later, this perspective appeared in the writings of Thomas of Aquinas and Spinoza (see Fridja et al., 1989). In reference to the classical period, Knuutila and Sihvola (1998) state that:

> [i]n the Academy of Plato's later period, the emotions were interpreted as states which included evaluative cognitions or were caused by them, and the view that the emotions are, in some sense, cognitive became dominant in ancient philosophy. (p. 5)

This notion was also implicit in James' (1890) rendition of the emotion process (i.e., emotion-arousing perceptions) (see Gray, 1999). However, for the next seventy-five years the cognitive components of emotion had remained simply "assumed" and "were rarely singled out for theoretical attention" (Ellsworth, 1991, p. 143). One of the most influential precursors to many elaborate theories on the relation of emotion to cognition was Schachter's *cognition-arousal* or *two-factor theory*. The theory was first proposed by Schachter and Singer (1962) and later elaborated in subsequent work by Schachter (1964, 1971a, 1971b).

Its formulation seemed to provide "a clear pathway through the James-Cannon controversy[20]" (Parkinson, 1987, p. 59). Accordingly, Petri (1986) states that:

> [i]n many respects, Schachter's model of emotion is a combination and modification of the James-Lange theory and Cannon's emergency theory of emotion. Schachter's theory, like the James-Lange theory, proposes that bodily changes are involved in the experience of emotion. In a fashion similar to Cannon, however, Schachter also proposes that the interpretation of an event is important for the full experience of emotion. (p. 61)

Schachter suggested that affective states are a result of the interaction between cognitive and physiological processes. Specifically, Schachter argued that one's emotional state is a joint function of (a) a state of physiological arousal and (b) an interpretation of that state based on one's cognition of the situation one is in (Pervin, 1984). Unlike those who subscribe to the James-Lange theory of emotion (e.g., Ekman et al., 1990, 1992) whereby each emotion is associated to a particular or distinctive pattern of physiological reactivity, Schachter (1964) held that a common or general state of arousal underlies all emotions. Therefore, like Cannon (1927, 1929), Schachter viewed peripheral response (i.e., arousal) as essentially equivalent across the spectrum of felt emotions (Parkinson, 1987). However, the mechanism of differentiation among emotions which he proposed was based on cognition. Specifically, the role of cognition was to guide a person in finding a label for the level of physiological arousal that s/he felt. Schachter's model appears in Figure 2d. So as to enable the role of cognition in providing a label for felt levels of arousal, Schachter and Singer (1962) suggested that sensory or interoceptive information was rather ambiguous and that this ambiguity motivated individuals to search the environment "for a label for the perceived but unexplained physiological state and to establish the intensity of the labeled emotional state" (Cacioppo et al., 1992, p. 67). The ambiguous nature of the proposed exciting event was clearly at odds with what was proposed in the Jamesian perspective.

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[20] As indicated above, James (1884, 1890) suggested that peripheral visceral reactions (i.e., autonomic nervous system activity) were specific and determined the quality of discrete emotional experience. On the other hand, Cannon (1927, 1931) reversed this sequence by arguing that peripheral responses were symptoms rather than causes of emotion and that these responses were rather undifferentiated and thus suggested that felt arousal was *general* rather than *specific* (see Cacioppo et al., 1992; Cornelius, 1996; Parkinson, 1987; Petri, 1986; Zajonc, 1998).

Specifically, James (1884,1890) had argued that the sensory information which triggered emotion elicitation was unambiguous. Leventhal (1979) further specifies Schachter's model:

> (1) stimulus situations can be contrived to give rise to arousal (e.g., by injection of epinephrine); (2) arousal is attended to and noticed; (3) arousal does not define a clear state of emotion; (4) because the meaning of arousal is unclear, a state of arousal creates a 'need to know' or need to explain the arousal sensations; (5) the individual searches his environment for a definition or causal antecedent of his arousal; and (6) when the antecedent cause is identified or labeled, the perception of the cause is itself felt as a particular emotional quality. (p. 6)

Schachter's work has not only been criticized from a conceptual/theoretical perspective but various flaws in experimental design have been identified (see Ellsworth, 1991; Marshall & Zimbardo, 1979; Maslach, 1979). Reseinzein (1984) reviewed a variety of studies that were designed to assess the validity of Schachter's model. These studies had investigated the proposed relationships between emotional states and levels of arousal in Schachter's theory along with other relationships that may be deduced or extrapolated from the theory. It was concluded that little evidence has been accumulated in support of Schachter's emotion process:

> 1. Of the three major empirical deductions from Schachter's theory that have been reviewed, only the second one (claiming that an emotional state will be intensified by mis-attributed arousal from an irrelevant source) can be considered adequately supported by the data. In contrast, empirical support for the first hypothesis (arousal reduction will lead to a proportional reduction in the intensity of the emotional state) is weak at best, and the status of the third hypothesis (misattribution of the emotionally-induced arousal to a neutral source will result in the reduction of emotionality) is considered equivocal .... 2. No compelling evidence has been found in support of some of Schachter's more strongly formulated propositions. Specifically, (a) none of the studies reviewed above convincingly demonstrate that peripheral arousal is, indeed, a necessary condition for an emotional state .... (b) In cases where misattributed arousal from an extraneous source was found to intensify emotional reactions, no firm evidence supports the notion that this arousal was first perceived as unexplained and that this subsequently instigated an explanatory search process .... (pp. 257-8)

Seemingly spurred by Schachter's work, a string of research appeared on cognition and emotion and various *appraisal theories* of emotion were introduced and developed (e.g., Fridja, 1986; Lazarus, Averill, & Opton, 1970; Lazarus, 1991a, b; Leventhal, 1984; Mandler, 1975, 1980; Oatley & Johnson-Laird, 1987; Ortony, Clore, & Collins, 1988; Roseman, 1984;

Scherer, 1984a; Smith & Ellsworth, 1985; Weiner, 1985a). Each represents a variant of "a family of theories of emotion centered on the concept of cognitive appraisal" (Lazarus, 1984b, p. 247). Ellsworth (1991) suggests that "there are now more than half a dozen appraisal theories of emotion bearing a close family resemblance to each other (for example Fridja, 1986; Roseman, 1984; Scherer, 1984b; Weiner, 1985a)." She goes on to say that: "[e]ach of these models differs in some ways from all the others, but there is also considerable overlap" (p. 144). In general, these theories, as does that of Schachter, propose that cognition antecedes and causes emotion. However they "go beyond Schachter and Singer [1962] in that they attempt to define the kinds of interpretations that contribute most fundamentally to emotional differentiation" (Ellsworth, 1994, p. 28). In other words, Schachter and Singer (1962) never specified the types of cognitions or antecedent appraisals that were relevant and important to emotion differentiation (Ellsworth, 1991). Accordingly, Fridja et al. (1989) state that:

> [i]n recent years, a new kind of cognitive emotion theory has emerged. It identifies the distinctive aspect of emotional experience with the experience of pleasure or pain or with its perceptual equivalent, the appraisal of eliciting events as pleasant or unpleasant; the experiences of the different emotions are explained by further cognitive appraisals of these events. A novel aspect of this approach ... is that these appraisals are described in terms of a relatively small set of appraisal dimensions .... Each emotional experience is thus thought to correspond to a cognitive structure consisting of a particular pattern of values on these dimensions. The approach claims to provide a satisfactory account of what distinguishes one emotional experience from another and of what differentiates the meaning of one emotion name from that of another ... recent research has produced sizable support for this approach, by demonstrating strong relations between emotions and cognitive appraisal structures. (p. 212)

The basic premise of recent appraisal theories is that discrete emotions are determined by the specific ways people interpret or appraise their environments; and consequently, differences in emotion result from differences in appraisal (Ellsworth, 1991; Lazarus, 1968; Parkinson, 1997; Scherer, 1997; Scherer & Ceschi, 1997). Numerous research findings have provided support for this perspective. Strong relations have consistently emerged between antecedent appraisals and discrete emotional states.

A variety of paradigms have been used in investigations of the role of cognitive

appraisal in emotion (Ellsworth, 1991; Lazarus & Smith, 1988; Parkinson & Manstead, 1992; Scherer, 1988b, 1997). In some studies subjects were asked to formulate judgments of emotion labels based on the appraisals suggested by the underlying concepts (e.g., Fridja, 1987; Parkinson & Lea, 1991). This approach is rather indirect (Scherer, 1997). In other research, subjects were asked to recall past emotional experience and to provide antecedent appraisal ratings on formal scales. When subjects were asked to freely describe emotional incidents, appraisal dimensions were commonly alluded to and differences in the cognitive dimensions they mentioned reflected differences in the emotions they were referring to in their accounts (e.g., Davitz, 1969; Ellsworth & Smith, 1988a, b; Folkman & Lazarus, 1988; Fridja et al., 1989; Reisenzein & Hofmann, 1993; Shaver, Schwartz, Kirson, & O'Connor, 1987; Smith & Ellsworth, 1985; Weiner, 1985a). Oatley and Duncan (1992) suggest that studies of emotion which involve retrospective ratings of emotion incidents typically make use of the following methodology:

> A method that has gained favour recently ... is to have people recall incidents of emotion that have occurred to them in the previous week or so, to write down a description of each event and to rate it on various criteria or dimensions (p. 250)

Difficulties nevertheless emerge in this approach with respect to the comparability of the various situations that are reported by subjects and because of a reliance on long-term memory (Scherer, 1997). Other investigations of appraisal theories have involved manipulations based on the use of vignettes and scenarios and the reported emotional reactions of subjects (e.g., Roseman, 1984; Russell & McAuley, 1986; Smith & Lazarus, 1993; Stipek, Weiner, & Li, 1989). Because subjects are asked to imagine themselves in a particular situation and their reaction to it, this approach involves the drawback of eliciting a highly mediated response (Scherer, 1997). Finally, some studies have relied on naturally-occurring events and experimental methods (e.g., Folkman & Lazarus, 1985; Smith, 1989; Smith & Ellsworth, 1987; Scherer & Ceschi, 1997). According to Scherer (1997), this approach is best because "[s]ubjects are studied in comparable situational contexts and thus different emotional reactions can be traced back to individual differences in appraisal processes" (p. 213).

Variations among current *appraisal theories* rest partly on differences in the kinds

of appraisals and in the combinations of appraisal dimensions which are posited to be involved in generating and differentiating emotions (Parkinson, 1997). Arnold (1960) viewed appraisals as *sense judgments* or as "direct, immediate, nonreflective, nonintellectual, [and] automatic" (p. 174). Such appraisals are considered pre-attentive in that they occur outside of awareness (Öhman, 1999). The sets of appraisal dimensions which underlie more recent theories have tended to be viewed as continuous rather than categorical and their specifications have tended to suggest more cognitive content and hence, more information processing than purported by Arnold (1960).

Proposed sets of appraisal dimensions have included variations of the following: (a) *attentional activity/novelty*, (b) *valence (pleasantness/unpleasantness)*, (c) *certainty*, (d) *anticipated effort*, (e) *agency* (oneself vs. someone else), (f) *situational control*, (g) *perceived obstacle*, (h) *importance* and (i) *norm/self-concept compatibility* (see Smith & Ellsworth, 1985, 1987; Ellsworth, 1991, 1994; Ellsworth & Smith, 1988a, b; Fridja, 1986; Ortony et al., 1988). Among the many competing appraisal theories of emotion (Fridja, 1987; Lazarus, 1991a; Roseman, 1991; Scherer, 1984a; Smith & Ellsworth, 1985; Smith & Lazarus, 1993; Weiner, 1985a), the most comprehensive in terms of the number of appraisal dimensions is the Smith and Ellsworth (1985) model which was originally based on eight dimensions. Smith and Ellsworth (1985) suggested that their eight dimensions seemed to account for most of the dimensions proposed by other researchers. However, only six orthogonal dimensions were recovered with empirical analysis: (a) perceived *pleasantness*, (b) anticipated *effort*, (c) extent to which *attention* is given to a situation, (d) *certainty* about current and future events, (e) whether self or another bears *responsibility/control*, and (f) *situational control*. Smith and Ellsworth (1985) reported that each dimension contributed to the differentiation of fifteen different emotions. The importance of these dimensions in differentiating emotions was confirmed in a subsequent study (see Smith & Ellsworth, 1987).

The necessity for a combination of dimensions in differentiating among emotions is a common theme among appraisal theories. This is made evident by simply looking at the *pleasantness/unpleasantness* dimension which generally appears as a most basic dimension along which all emotions can be ordered. However, the location of an emotional state on this

continuum is not enough to provide a specific label for the feeling or to sufficiently describe the state that is experienced. It also implies little with respect to other appraisal dimensions. To further specify a particular discrete emotion, additional dimensions are therefore needed. They add to the explanatory power of a particular cognitive model of emotion. Keltner, Ellsworth, and Edwards (1993) state that:

> Smith and Ellsworth (1985), for example, in a study of 15 emotions, found that although the dimension of pleasantness-unpleasantness accounted for the largest proportion of the variance, relative pleasantness was quite unimportant in differentiating among the positive or negative emotions. That is, once a person feels bad, degrees of "badness" are of little use in predicting whether the emotion will be sadness, anger, fear, guilt, or some other negative emotion. Instead, perceptions of agency assume central importance (Ellsworth & Smith, 1988[a]). When people perceive some other person to be the cause of their misfortune, they feel angry; when people perceive impersonal circumstances beyond human control to be the cause of their misfortune they feel sad; and when they perceive themselves to be the cause of their misfortune they feel guilty. (p. 741)

In this perspective, the emotion *sadness* for example emerges as an unpleasant emotion but one that also involves the belief that a situation is *uncontrollable* (Tesser, 1990). The *controllability* dimension plays a fundamental role in appraisal theories based on attribution. For instance, Weiner, Graham, and Chandler (1982) provided an appraisal theory analysis of pity, anger, and guilt. The three appraisal dimensions they used were identified in prior research on causal attribution dimensions (see Russell, 1982). They reported that:

> anger is greater given controllable than uncontrollable causes ... whereas pity is greater given uncontrollable than controllable causes .... Within the controllable causes, anger is enhanced when causality also is internal and stable, whereas pity is increased when the uncontrollable cause is internal and stable. (pp. 231-232)

Scherer's (1988b) exhaustive review of appraisal dimensions across proposed theories indicates that emotions occur due to combinations of the following general categories of appraisal factors: (a) a change in state of affairs due to external stimulus or an internal change (i.e., particular idea or recall of past event from memory); (b) type of stimulus event (i.e., internal vs. external); (c) consequences of events (e.g., positive valence of events); (d) causation of the event (i.e., causal attribution of an event affects resulting emotion); (e) relationship of event to goal/plan state (i.e., which needs are affected by the

outcome of an event); (f) consistency of consequences with expectation[21] (i.e., do outcomes help achieve goals or do they block the path to goal achievement?); (g) potential to cope with consequences; and (h) relation of event to external and internal standards (e.g., relation of outcomes to moral standards). Reviews of appraisal dimensions also appear in Clore, Schwarz, and Conway (1993) as well as in Lazarus and Smith (1988).

Reseinzein and Spielhofer (1994) used a variant of Kelly's (1955) repertory grid technique in attempts at generating an exhaustive and valid list of appraisal dimensions (see also Reisenzein & Hofmann, 1990). The list of potential appraisal factors that was submitted to subjects was determined *a priori*. A set of thirty emotions was also presented to subjects. It was argued that the set was "a fairly representative sample of the emotional spectrum" (p. 37) and was based on a review of the psychological literature on emotion and interviews with laypeople. To qualify as an appraisal dimension, an appraisal factor was required to display (a) discriminative power in that it differentiated among ensuing discrete emotions and (b) statistical independence from other appraisal factors. Twenty-two appraisal dimensions emerged which were clearly delineated from other non-appraisal dimensions. Many show overlap with those listed above.

Scherer (1999) suggests that four major classes of appraisal criteria can be identified: (1) "[i]ntrinsic characteristics of objects or events, such as novelty or agreeableness"; (2) "the significance of the event for the individual's needs or goals"; (3) "the individual's ability to influence or cope with the consequences of the event, including the evaluation of agency"; and (4) "the compatibility of the event with social or personal standards, norms, or values" (p. 638). An examination of the types of possible appraisals indicates that "appraisals can be deliberative, purposive, and conscious, but also unreflective, automatic, and unconscious, depending on the person and eliciting conditions for emotional arousal" (Bagozzi et al., 1999, p. 185). The former type is evident in theories such as that of Lazarus (1991a) whereas

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[21] As an evaluative judgment, expectancy disconfirmation lies at the core of many conceptual and operational definitions of service quality (e.g., Grönroos, 1990; Parasuranam et al., 1988) and also appears as an antecedent to service satisfaction in many conceptualizations (Oliver, 1996). We will later argue that given the number of appraisal dimensions which have been proposed, service evaluation frameworks based on this single dimension of appraisal are insufficient to account for emotion in the service encounter.

the latter type is stressed in Arnold (1960). Scherer (1993) suggests that:

> [a]lthough the formulations used by some theorists may suggest that appraisal is viewed as a conscious, and consequently exclusively cortically based process, other theorists in this tradition have insisted early on that the cognitivistic connotations of the terms "appraisal" and "evaluation" do *not* preclude that a substantial part of these processes occur in an unconscious fashion, mediated via subcortical[22], e.g. limbic system, structures (Scherer, 1984a, b). (p. 328)

Elsewhere, Scherer (1997) identifies three different approaches to proposed sets of appraisal dimensions:

> (1) a *reductionist* approach, reducing the number of dimensions to a minimum, often based on the assumption of fundamental motive constellations or prototypic themes (Lazarus, 1991[a]; Oatley and Johnson-Laird, 1987; Stein and Trabasso, 1992); (2) an *eclectic* approach, attempting to enumerate as many appraisal dimensions as considered useful to maximize the differentiation between the ensuing emotional states (Fridja, 1986, 1987); and (3) a *principled* approach (e.g., Roseman, 1991; Scherer, 1984[b], 1986, 1993[...]; Smith and Ellsworth, 1985) postulating a restricted number of abstract (in the sense of being devoid of specific content such as type of underlying goal or specific theme) appraisal dimensions that are considered sufficient to account for the differences among the major emotion categories. (p. 116)

Some appraisal theories tend to specify which discrete emotional response will result not only from a combination of particular appraisals but also from a temporal sequence of appraisals. Such sequential processing theories may account for *emotion episodes*[23] that involve continuous changes in appraisals and in subsequent emotional reactions over time (Folkman & Lazarus, 1985; Fridja, 1986; Scherer, 1984a, b). For instance, Scherer's (1984a) *component process theory* holds that the appraisal process operates continuously in a

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22 Subcortical structures are typically associated with low levels of awareness whereas cortical structures involve conscious information processing (see Scherer, 1993).

23 Typically, tests of appraisal theories of emotion involve (1) a series of items associated to rating scales which are designed to assess antecedent appraisal dimensions and (2) a set of emotion labels which represent the emotional states that researchers presume are likely to ensue from combinations of cognitive appraisal dimensions. Accordingly, Scherer (1993) holds that: "[a]ppraisal theories basically provide a semantic grid for the comprehension of the use of emotion terms or labels, and are thus limited to structural analyses or explications of semantic fields of emotion terms" (p. 329). These emotion labels (e.g., anger) presume a static affective state. However, affective states and antecedent appraisals tend to involve continuous change (Folkman & Lazarus, 1985). Thus, the notion of *emotion episode* implies the occurrence of changes in appraisals and consequent emotional states over time. As such, it acknowledges a dynamic process which most appraisal theories do not address because of their lack of process orientation (Scherer, 1993).

predetermined pattern. Discrete emotions are presented as determined by "the successive outcomes of a series of *stimulus evaluation checks*" (1984a, p. 38). Stimulus evaluation checks (SECs) represent appraisal criteria and include: (a) *novelty check*, (b) *intrinsic pleasantness check*, (c) *goal/need significance check*, (d) *coping potential check*, and (e) *norm/self compatibility check* (for discussions, see Scherer, 1984a, b, 1986, 1988b, 1992, 1993). SECs are ordered here in the sequence proposed in Scherer (1984a, b) which is presumed to be invariant. Moreover, Scherer (1984a, b, 1993) has suggested that SECs occur sequentially in rapid succession. Consequently, this appraisal process is taken to explain the episodic nature of emotion or changes in emotional states over time. An empirical test of the model's predictive power was undertaken in Scherer (1993) with the use of a computerized expert system. Scherer (1993) reported that results "demonstrated an accuracy of post hoc diagnosis that substantially exceeds chance for many of the emotions studied and that lends support to the specific appraisal theory suggested by the author" (p. 350).

Similarly, Lazarus' *cognitive-motivational-relational theory* also specifies sequenced combinations of appraisal forms and ensuing discrete emotions[24] (see 1991b; Smith & Lazarus, 1993). Lazarus (1984b) states that the role of appraisal is "to mediate the relationship between the person and the environment" (pp. 247-8). He adds that: "[t]he appraisal process gives rise to a particular emotion with greater or lesser intensity depending on how the relationship is evaluated with respect to the person's well-being" (p. 248). The theory thus places *relational meanings* at the center of the appraisal process. They are defined as: "specific implications for personal well-being" that a person identifies in a situation (Smith & Lazarus, 1993, p. 236) and are said to be determined not only by what a situation can provide a person in terms of benefits or harm (i.e., costs) but also by the goals and intentions or expectations a person brings to the situation (Lazarus, 1991a). The theory

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[24] Elsewhere, Lazarus reasoned that there is an immense capacity for variability in antecedent appraisals and that emotions should also be quite varied. Accordingly, the notion that emotions can be classified into a small number of discrete categories was presented as simplistic and misleading (see Lazarus, Kanner, & Folkman, 1980). A similar argument appears in Scherer (1984b, 1992, 1999). For instance, Scherer (1992) states that: "there are as many different emotion episodes as there are possible patterns of appraisal-determined cumulative patterns of component synchronizations" (p. 150). It is argued that this perspective not only contradicts "the claims of basic emotions theories" but also those of dimensional perspectives on emotion (see Chapter Three).

represents an attempt at relating aspects of the three most basic processes in psychology (motivation, cognition, and emotion). Together, these processes are referred to as the "basic triad" (Lazarus, 1999). Cornelius (1996) states that:

> Lazarus refers to his theory as "motivational-relational" because it describes how specific emotions arise out of the personal meanings that people bring to situations that have relevance to their knowledge and aspirations. (p. 125)

Parkinson (1997) suggests that Lazarus' (1991a) theory indicates that "if the situation is appraised as having a sufficient degree of personal significance, then it will lead to an emotion of some kind" (p. 69). A *core relational theme* is defined as the "central relational harm or benefit in adaptational encounters that underlies each specific kind of emotion" (Lazarus, 1991a, p. 121). Smith and Lazarus (1993) state that: "[a] *core relational theme* is simply the central (therefore core) harm or benefit that underlies each of the negative and positive emotions" (p. 236). For instance, Lazarus (1991a) holds that the core relational theme for sadness is one of *irrevocable loss* or *helplessness about harm or loss*. Several types of individual appraisals are said to combine to form these themes (Lazarus, 1991a).

Evaluation is presented as having two basic facets. *Primary appraisals* involve assessments of (a) the situation's impact on the person's well-being and (b) whether it facilitates or hinders goal attainment. During primary appraisal, individuals are assumed to ask themselves such questions as: "Am I in trouble or being benefitted, now or in the future, and in what way" (Lazarus & Folkman, 1984, p. 31). On the other hand, *secondary appraisals* represent reevaluations of the event with respect to various coping strategies and the extent of available resources (environmental and personal) for dealing with the situation. A typical question which characterizes secondary appraisals is: "What if anything can be done about the situation" (Lazarus & Folkman, 1984, p. 31). Secondary appraisals further differentiate the emotional state induced by primary appraisals. Together, primary and secondary appraisals are taken to determine the quality and intensity of an emotional reaction (Lazarus, 1991a). Core relational meanings are considered "to be greater than the sum of the appraisal components that imply them, and to have properties and adaptational implications that cannot be easily derived from considering just the appraisal components taken individually" (Smith & Lazarus, 1993, p. 260). Smith and Lazarus (1993) add that:

> [w]hereas the individual appraisal components describe the specific questions evaluated in appraisal, the core relational themes efficiently capture the central relational meaning derived from the configuration of answers to these appraisal questions, which differs in each emotion .... Notably, the answers to the appraisal component questions are not conceptualized as causing the core relational themes in a mechanistic sense. Instead, the relationship between the appraisal components and core relational themes is one of logical and analytic causality: Each core relational theme is *defined* by a specific configuration of answers to several appraisal component questions. Thus, a specific configuration of appraisal components *implies* a particular relational meaning and vice versa - without any necessary causal ascription. In short, the appraisal components and core relational themes provide alternate ways of representing the *same* relational meanings associated with the various emotions (pp. 236-237)

Smith and Lazarus (1993) suggest that prior investigations of cognition and emotion showed a tendency "to treat knowledge and appraisal as interchangeable" (p. 235). They add that: "[t]he resulting models intermix components of appraisal with components of knowledge and the subjective properties of the emotional response, producing considerable theoretical and empirical unclarity (cf. Lazarus & Smith, 1988; Scherer, 1988[c])" (p. 235). Appraisal is presented as something which serves the mediational role of "linking emotional responses to environmental circumstances on the one hand, and personal goals and beliefs on the other" (p. 234). Specifically, Smith and Lazarus (1993) hold that:

> [w]e have proposed that two distinct but related types of cognition are involved in achieving this linkage, but that only one of these directly results in emotion (e.g., Lazarus, 1991a; Lazarus & Folkman, 1984; Lazarus & Smith, 1988; Smith & Lazarus, 1990; ...). First, a well-developed construal of the factual nature of one's circumstances, reflecting one's *knowledge* or *beliefs* about what is happening, is necessary. However, we do not believe this construal by itself is sufficient to produce emotion. Instead, we propose that the "facts" as represented in this construal must be evaluated, or *appraised*, with respect to their significance for personal harm or benefit for emotion to result. The implications for personal well-being that emerge from this appraisal comprise the relational meaning that, we think, lies at the heart of emotion. (p. 234)

Smith and Lazarus (1993) provided a test of a variant of Lazarus' (1991a) theory (for a discussion of the differences, see postcript in Smith & Lazarus, 1993). The study was based on supplying subjects with written scenarios designed to elicit different relational themes and appraisals, and consequently, different emotions. They found that the appraisal process used

by subjects was as predicted for three (anger, guilt, and fear-anxiety) of the four emotions they induced. Weaker support was provided for sadness. Specifically, the primary appraisal dimension (motivational congruence) served to distinguish between positive and negative emotions. Secondary appraisal dimensions evaluated coping potential and were shown to further differentiate between positive and negative emotions. Smith and Lazarus (1993) conclude that: "[n]ot only were the first three emotions highly correlated with the theoretically appropriate appraisals, but they were more highly correlated with those appraisals than with others" (p. 258). Weak discriminable relationships between sadness and specific cognitions has been reported elsewhere (e.g., Ellsworth & Smith, 1988a; Smith & Ellsworth, 1987). It appears that the semantic category of *sadness* may subsume a variety of negative states.

Causal attribution is a spontaneous process (see Weiner, 1985b) which has been found to mediate a variety of other processes (Graham & Brown, 1988). Weiner (1972, 1974, 1979, 1980, 1982, 1985a, 1986; Weiner, Graham, & Chandler, 1982; Weiner, Russell, & Lerman, 1978, 1979) proposed an attribution-based appraisal theory of emotion. Weiner (1986) states that:

> [t]he cognitive perspective adopted here does not deny that some emotions may be elicited without intervening thought processes. For example, conditioned fear and hormonally induced depression may not be preceded by higher level thinking .... Rather, it is simply postulated that cognitions quite typically precede and determine affective reactions. To an attributionist, this means that perceptions of what caused a positive or negative outcome in part determine the affective reactions to that outcome. (p. 119)

Weiner (1986) adds that:

> [f]ollowing the appraisal of the outcome, a causal ascription will be sought if that outcome was negative, unexpected, and/or important. A different set of emotions is then generated by the chosen attribution(s). For example, success perceived as due to good luck produces surprise. Emotions such as surprise are labeled as 'attribution-dependent,' inasmuch as they are determined by the perceived cause of the prior outcome. Note that increasing cognitive complexity generates more differentiated emotional experience. Additionally, causal dimensions play a key role in the emotion process. Each causal dimension is uniquely related to a set of feelings. For example, success and failure perceived as due to internal causes such as personality or effort respectively raise or lower self-esteem or self-worth. That is, feelings related to self-

esteem are influenced by causal properties (dimensions) rather than by a specific cause. (p. 121)

Weiner's theory holds that (a) outcome evaluations influence general affects and (b) attribution dimensions play a subsequent role in the generation of specific emotions (e.g., pride). Thus, the theory involves an initial appraisal of an outcome and posits an immediate affective reaction that is *outcome dependent*. This reaction involves general affects which emerge as either positive or negative (i.e., feeling good or feeling bad). Accordingly, Russell and McAuley (1986) state that: "[t]hese affects are very general positive or negative reactions that are experienced intensely following success and failure outcomes, irrespective of the causal attribution made by the individual for the outcome" (p. 1174). They go on to say: "[t]hat is, people feel good when they succeed and bad when they fail, regardless of the perceived cause of the success or failure" (p. 1174). As in other appraisal theories of emotion, the valence dimension (pleasure-displeasure) is insufficient to further specify a discrete emotional state (see Keltner et al., 1993). Further specification in Weiner's theory is based on appraisal dimensions which constitute aspects of causal attributions. The theory holds that the person will engage in causal attribution for the outcome which, in turn, will result in "[a]nother set of affects which are *attribution dependent*" (Russell & McAuley, 1986, p. 1174). Hence, attribution dependent affects emerge as more specified emotional states (i.e., discrete emotions). In other words, causal attribution dimensions are seen as providing greater cognitive complexity to initial judgments of success and failure and this complexity results in more specified emotional states.

Although Weiner's work has been mainly concerned with the evaluation of success and failure outcomes in achievement-related situations (see Russell & McAuley, 1986), the theory has been applied in a variety of contexts (e.g., Bitner, 1990; Folkes, 1984, 1988; Folkes, Koletsky, & Graham, 1987; Krishnan & Valle, 1979; McAuley, Russell, & Gross, 1983; McFarland & Ross, 1982; McMillan & Forsyth, 1983; McMillan & Spratt, 1983; Russell & McAuley, 1986).

Past research has involved attributions which were either specific (e.g., attributions to ability, effort, actions of others, or luck) or viewed in a dimensional manner (e.g., internal-

external attribution) (see Russell & McAuley, 1986). Much causal attribution research has involved a multidimensional causal structure. Three dimension were deemed particularly important by Weiner (1979): (a) *locus of causality* which reflects whether the cause lies with the person or with something external to the person; (b) *stability* which involves a judgment of whether the cause is variable or stable over time; and (c) *controllability* which refers to whether a cause is under the person's control or that of other people (see also, Russell, 1982). The potency of each dimension appears to vary from study to study. For instance, McAuley, Russell, and Gross (1983) found that the *controllability* dimension was the more important causal attribution determinant of affective reactions to failure or success following athletic performance. On the other hand, Weiner et al. (1978, 1979) stressed the importance of the *locus of causality* (internal-external) dimension. Russell and McAuley (1986) provide a table which summarizes the findings reported in Weiner et al. (1978, 1979). It has been reproduced here (see Table 1). For instance, Weiner et al. (1978, 1979) found that an external attribution (i.e., actions of others) for success resulted in feelings of gratitude whereas an external attribution for failure was likely to induce anger or fury. On the other hand, an internal attribution (i.e., ability) for failure was found to result in feelings of incompetence, resignation, or depression whereas an internal attribution for success led to feelings of competence, confidence, or pride.

Weiner's theory has generated much research on the cognitive antecedents of emotion and has been rather favorably received (see Graham & Brown, 1988; Izard, 1982). For instance, Izard (1982) states that:

> Weiner's basic premise that causal attributions are sufficient antecedents for the activation of emotions appears quite reasonable and intuitively appealing. Any of us can think of numerous instances where we attributed to ourselves some inadequacy and felt shame, or an inability to cope with a threatening situation and felt fear. According to Weiner and the 'guiding principle of attribution theory,' we make these attributions and experience the consequent emotions because individuals search for understanding, seek to discover why an event has occurred .... Weiner has made an insightful analysis of the dimensions of causality within the framework of attribution theory. An understanding of these dimensions seems to facilitate the prediction of causal ascriptions and the role of particular classes of causal attributions in the activation of specific emotions. (p. 234)

Table 1

Attribution-Dependent Affects

Attribution	Affects	
	Success	Failure
Ability	Competence Confidence Pride	Incompetence Resignation Depression
Effort	Relief Contentment Relaxation	Guilt Shame Fear
Actions of others	Gratitude Thankfulness	Anger Fury
Luck	Surprise Guilt	Surprise Astonishment

Source: Russell and McAuley (1986)

Some appraisal theories have attempted to specify links between antecedent appraisals and other components[25] of emotion. Scherer (1999) states that: "[g]enerally these theories argue that, from a functional point of view, appraisal outcomes should bring about an appropriate adaptive reaction in the other emotion modalities" (p. 649). For instance, Fridja (1986, 1987) has mainly emphasized the link between appraisal outcomes and action tendencies. This relation was later demonstrated with self-report methodologies in Fridja et al. (1989). Smith (1989) proposed that the physiological pattern (i.e., autonomic activity), which according to the functionalist perspective underlies each discrete emotion, is triggered by antecedent appraisal (see also Lazarus, 1968; Scherer, 1982a, 1984a). In addition, he argued that because the physiological pattern is partly designed to convey to others how one feels along with one's behavioral intentions and partly to prepare one for coping with the appraised demands, appraisal information should be encoded in one's expressions and "aspects of appraisal having direct implications for coping should be systematically related to the properties of the physiological responses that prepare the person to cope in particular ways" (p. 340). In other words, relations were hypothesized among appraisal factors, physiological activity (arousal), and expressions of emotion. In general, results indicated that "properties of physiological activity systematically reflect specific properties of appraisal in ways that both communicate the appraisal properties to others and prepare the person to cope with the functional implications of the appraised situation" (p. 349). For instance, increased heart rate (arousal) was found to be associated with the appraisal dimension of *anticipated effort* whereas components of expressions such as frowning of the eyebrow and smiling were clearly associated with appraisals made over the *pleasantness (valence)* dimension. Similarly, Scherer (1992) proposed that facial expressions not only reveal information about emotion but also about thoughts (cognitions) (see also Ellsworth, 1991). Some research has suggested that cognition directly intervenes in some but not all components of emotion (e.g., Fridja, 1986; Ortony et al., 1988; Zajonc et al., 1982). For instance, Zajonc et al. (1982) suggest that:

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[25] Emotion response components involve behavioral, physiological, and phenomenological (subjective feeling) aspects (see Öhman, 1986). Behavioral responses are typically broken down into facial expressive and instrumental behaviors.

> [i]f we distinguish between the *experience* and *expression* of emotion, we may inquire whether cognition is necessarily involved in both aspects of emotion. Now one would have to concede that the emotional *experience* cannot occur without some participation of cognition. Since by 'experience' we must understand some form of self-perception, the assertion is true by definition. The same is true, of course, of *reported* experiences and of judgments .... However, the expression of emotion often requires no cognitive processes. A loud noise produces an affective expression, the loss of support or balance also produces an overt reaction, as does extreme heat applied to the body, or extreme pressure. By 'expression' of emotion we mean here those aspects of bodily states, changes, and acts that allow one individual to detect the emotional state of another, and often identify the nature of that state. It is also the case that the administration of a variety of drugs generates a variety of emotional expressions. Alcohol, barbiturates, amphetamines, depressants, and hashish all have clear somatic and expressive consequences. While these expressions and somatic effects may be *accompanied* by cognitive processes, that is, by the experience of emotion, appraisal, or evaluation, they are not necessary for the generation of a variety of emotional reactions that have distinct forms of expression. (p. 213)

The appraisal or cognitive perspective on emotion is the dominant in psychology. Reviews of appraisal theory research and some comparative studies have demonstrated a convergence of findings with respect to appraisal dimensions and emotion differentiation (see Lazarus & Smith, 1988; Manstead & Tetlock, 1989; Parkinson, 1997; Reisenzein & Hofmann, 1990; Scherer, 1988b). However, Parkinson (1997) argues that "although appraisals characterize emotions as conventionally defined, there is little direct evidence that a specific cognitive process of appraisal always precedes and determines emotional reactions" (p. 73). He further suggests that the evidence that appraisal dimensions determine discrete emotional states is conceptual and correlational rather than causal[26]. Because much of the work on appraisal theories remains at the level of conceptual analysis and this level includes much empirical work in the area, Parkinson (1997) argues that past and current efforts are subject to circular reasoning (see also Matsumoto, 1995). Moreover, Scherer (1993) has suggested that the widespread acceptance of appraisal theories as an explanatory framework has been impeded because of three shortcomings of this perspective on emotion:

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[26] According to Hatfield, Cacioppo, and Rapson (1992a), many researchers have sought to specify the causal directionality of components of emotion. However, these efforts appear futile because the onset of emotion appears to involve the more or less simultaneous triggering of components. In addition, causal bidirectionality between components of emotion seems to be the rule rather than the exception (Zajonc, 1998). This will be discussed further in subsequent sections.

"(1) the reproach of excessive cognitivism; (2) the lack of process orientation; and (3) the lack of consensus on the number an type of appraisal criteria" (p. 326). Finally, the various sets of appraisal dimensions proposed by many researchers and the self-report methodologies which are typically used in appraisal studies suggest that conscious processing is assumed on the part of subjects. Nevertheless, appraisals have been presented as potentially unconscious (e.g., Arnold, 1960; Öhman, 1999). Öhman (1999) argues that although the subsequent emotion may be conscious as suggested in Clore (1994), the antecedent appraisal process which generates the emotion may involve unconscious or pre-attentive processing. He adds that: "[f]rom this perspective, unconscious emotional processes would be viable objects of scientific inquiry, even though the final product that would legitimate the modifier 'emotional' in front of 'processes' would be a conscious feeling state" (p. 335). LeDoux (1996) argued that excessive cognitivism and a reliance on conscious processing represented a remnant of cognitive science in the study of emotion. Consequently, he suggested a change of focus to unconscious information processing.

The Controversial Role of Cognition in Emotion

The role of cognition in emotion has become quite controversial and somewhat ambiguous. Findings reviewed earlier point to affect largely undetermined by cognition. In particular, the Darwinian perspective suggests genetically transmitted material and ANS activity as a determinant of emotional expression across cultures (see Ekman et al., 1969) and the Jamesian (James, 1884, 1890) specifies that bodily changes precede and determine emotion. In accordance with this latter perspective, successful investigations of the *facial feedback hypothesis* in which facial movement determined emotional experience clearly downplay evidence of cognitive involvement in the production of felt emotion (see Adelmann & Zajonc, 1989; Izard, 1990; Laird, 1984; Leventhal, 1984; Zajonc, Murphy, & Inglehart, 1989). Many have argued for the primacy of affect or that it does not require cognition (e.g., Osgood, 1962; Wundt, 1907; Zajonc, 1980, 1984). This position appears further reinforced by recent neurophysiological evidence (see Izard, 1993; LeDoux, 1989).

Some evidence for the primacy of affect involves findings which indicate that affect carries an impact on various cognitive processes which include learning, recall of events,

expectations, and judgment of the risk in particular situations (Clark & Isen, 1982; Clore, Schwarz, & Conway, 1993; Desteno, Petty, Wegener, & Rucker, 2000; Forgas, 1995, 1999; Isen, 1984, 1987, 1999; Pervin, 1984; Schwarz & Clore, 1996; Wegener & Petty, 1996). Accordingly, Pervin (1984) states that:

> [a]pparently, emotions may facilitate, channelize, direct, interfere with, or disrupt cognitive processes .... Thus, after decades of studying cognition with relative neglect of emotion, many cognitive psychologists are not only studying the relation of cognition to affect but suggesting that the cognitive system is subservient to the affective system .... (p. 141)

Recently, Izard, Libero, Putnam, and Haynes (1993) suggested that each emotion causes selective perception. Accordingly, Pervin (1984) states that: "[i]t is as if our emotions play a role in raising and lowering the threshold for the perception of various phenomena" (p. 141). In a like vein, Clark and Isen (1982) proposed that when people are depressed, they are more likely to interpret events in a negative way whereas "people who are in positive feeling states seem to make judgments and to behave as if they viewed the world through rose-colored glasses" (p. 78). Other findings suggest that emotional states result in changes in receptivity to certain kinds of cognitive information (Clark & Williamson, 1989; Forgas, 1991c, 1999; Isen 1984, 1999). For instance, Isen (1984) found that positive mood increases the probability that positive or pleasant memories will be retrieved and the speed of their retrieval. Moreover, Niedenthal and Setterlund (1994) reported that subjects in whom happy or sad feelings were induced made lexical decisions about emotion congruent (happy or sad) words faster than in instances where induced feeling state and the words were incongruent. In other words, subjects perceived emotion-congruent stimuli with greater efficiency. Others have shown that negative mood priming results in overestimation of the likelihood that future negative events will occur (see Johnson & Tversky, 1983). Much of the research which has focused on how emotion affects cognition suggests the importance of the valence of affective states (e.g., Clore et al., 1993; Desteno et al., 2000; Forgas, 1995; Schwarz, 1990). Accordingly, the impact of affective states is typically assessed with respect to happy or sad moods. Isen (1999) offers a review of the effects of positive affective states on a variety of cognitive processes.

Forgas (1999) states that: "[p]erhaps the most parsimonious and influential theory for explaining affective influences on cognition and judgments has been the network theory of affect" (p. 591). This theory generally holds that affect and cognition may somehow become "linked within a cognitive representational system" (p. 593). Forgas (1999) adds that:

> [a]ccording to this view, the arousal of an affective state spreads activation throughout a network of cognitive associations linked to that emotion .... As a result, material that is associatively linked to the current mood is more likely to be activated, recalled and used in various constructive cognitive tasks, leading to a marked mood congruency in constructive associations, evaluations and judgments. (p. 591)

Forgas (1995, 1999) suggests that much of the work stimulated by network theories of affect has involved four areas: (a) mood-state dependent retrieval (e.g., Bower, 1981; Forgas & Bower, 1987; Snyder & White, 1982); (b) mood-congruent retrieval (e.g., Burke & Matthews, 1992; Teasdale & Russell, 1983); (c) selective attention and learning effects (e.g., Bower, 1981; Forgas & Bower, 1987); and (d) associations and interpretations (e.g., Bower, 1991; Forgas, Bower, & Krantz, 1984). In this stream of studies, affect is clearly shown to impact cognition.

Zajonc (1980, 1984, 1998) has maintained that affects are basic, primary, and need not depend on cognition. Specifically, Zajonc (1980) proposed that: (a) the affective system is self-contained and that affect can thus be independent of thought and (b) affective states are not necessarily determined by the cognitive system which is a more analytic and slower system or that affect can precede thought. Zajonc (1980) argues that:

> [c]ontemporary psychology regards feelings as last. Affect is postcognitive ... one of my purposes was to convince you that affect should not be treated as unalterably last and invariably postcognitive. (p. 151)

He adds that:

> [unlike cognitions], affective responses are effortless, inescapable, irrevocable, holistic, more difficult to verbalize, yet easy to communicate and understand. (p. 169)

By adopting this position, Zajonc took exception to the dominant position of the time which stressed the primacy and antecedent nature of cognition. Many researchers have held to the primacy of cognitive appraisal in determining affect (e.g., Lazarus, 1981, 1982, 1984a, b, 1991a, b, c, 1999; Ortony et al., 1988; Roseman, 1991). In particular, Lazarus (1991c) has

continually maintained that "cognitive mediation is a necessary condition of emotion" (p. 356). Lazarus (1991c) adds that:

> I have taken the strongest position possible, and the most controversial, on the causal role of cognition in emotion, namely that it is both a necessary and sufficient condition. *Sufficient* means that thoughts are capable of producing emotions; *necessary* means that emotions cannot occur without some kind of thought. (p. 353)

Earlier, Lazarus (1984a) proposed that the simplest or most primitive forms of perception can constitute cognitive appraisal which, in turn, eventually gives rise to emotion. This perspective on cognition is taken to be rather broad (see Izard, 1993).

Over the 1980s, a strong debate was ignited and continued between Zajonc (e.g., 1980, 1984) and Lazarus (e.g., 1982, 1984a) on the role of cognition in emotional experience. Many others had contributed to this debate (e.g., Baars, 1981; Slife, 1981; Ellis, 1985; Kleinginna & Kleinginna, 1985; Scheff, 1985a; Leventhal & Scherer, 1987) which mostly revolved around the relation between cognition and emotion and the nature of antecedent appraisals or whether "[o]bjects must be cognized before they can be evaluated" (Zajonc, 1980, p. 151). Zajonc (1980) attacked the appraisal theory perspective which purported that affect occurs only after cognitive activity by stating that theorists such as Lazarus hold that:

> [a]n affective reaction, such as liking, disliking, preference, evaluation, or the experience of pleasure or displeasure, is based on a prior cognitive process in which a variety of content discriminations are made and features are identified, examined for their value, and weighted for their contributions. (p. 151)

Conversely, Zajonc argued that "preference precedes inference" or that affective reactions occur prior to and without the intervention of the rather complex type of cognitive activity he argued was suggested by appraisal theorists such as Lazarus. In fact, he noted that affective reactions to stimuli are often the very first reactions. To make his point, Zajonc (1980) referred to his earlier experimental work on the *mere exposure effect* (see Kunst-Wilson & Zajonc, 1980; Moreland & Zajonc, 1977, 1979; Zajonc, 1968). This work involved investigations of the role of pre-attentive processes in emotion (see Öhman, 1999). These experiments typically consisted in repeatedly and very rapidly presenting subjects with complex and novel/unfamiliar stimuli (e.g., Chinese idiograms, odd geometric shapes, etc.)

in various sequences. The very rapid presentation of these stimuli ensured pre-attentive perception. In other words, the stimuli were unconsciously perceived and processed but not consciously noticed. This process underlies what has come to be known as *subliminality* (see Bargh, 1992; Uleman & Bargh, 1989). Next, subjects were asked to rate the target stimuli on liking, attractiveness, preference, or desirability. In general, preference was positively associated with frequency of exposure rather than conscious recognition. For instance, the experiment by Kunst-Wilson and Zajonc (1980) consisted in two phases. In the first, subjects were exposed very briefly (1 ms) to stimuli (e.g., irregular geometric shapes). In the second, the same subjects were exposed to pairs of stimuli where each pair consisted in the original stimulus and a similar distractor. Subjects were then asked to indicate which stimulus they preferred in each pair. Consistently, subjects showed preference for the stimuli they had previously been exposed to although recognition remained at chance level. In other words, this stimuli remained consciously unrecognized. Hence, it was concluded that subjects developed preferences for objects they did not recognize and that the mere exposure effect did not require conscious mediation.

More recently, Mita, Dermer, and Knight (1997) very briefly presented subjects with an inverted picture (i.e., as one sees him/herself in the mirror) and a non-inverted picture (i.e., as others see one) of their face and of a friend's face and asked the subjects to choose the one they preferred. According to the mere exposure effect hypothesis, subjects would choose the inverted picture of their own face over its counterpart and the converse would appear for pictures of the friend's face. Results confirmed the hypothesis. Generally, the results of experiments on the mere exposure effect pointed to unconscious or pre-attentive forms of cognition (Öhman, 1999).

Zajonc (1980) presented additional findings which downplayed the role of attentive cognition in judgment. This evidence revolved around the development of preferences for objects independent of memory of events (i.e., conscious awareness/cognitions) associated with these objects. For instance, he suggested that many food aversions and preferences exist in the absence of memory for negative and positive events associated with them. In sum, Zajonc (1980) demonstrated that attention and memory, aspects of human functioning closely

associated with conscious cognition (Bowers, 1984; Kunda, 1999), were not necessary for an affective reaction.

In Zajonc's perspective, antecedent conditions to emotion (i.e., emotional perception) are automatic, more or less immediate, and nonreflective processes. For instance, Zajonc (1980) states that: "to arouse affect, objects need to be cognized very little - in fact, minimally." This view seems very similar to that of Arnold (1960) in that the appraisal process is described as a "sense judgment" that is "direct, immediate, intuitive, nonreflective" (p. 175) and therefore does not involve in-depth information processing[27]. However, Zajonc's perspective deviates from Arnold's proposals with respect to the role of past experience. Arnold (1960) insisted on the importance of past experience in the way a person assessed a situation. On the other hand, Zajonc (1980) argued that past experience is often irrelevant and this was clearly demonstrated in his earlier mere exposure studies. In subsequent work, Zajonc (1984, 1985) maintained that emotion is a visceral reaction and that it is therefore not necessarily a consequence of conscious cognition. Zajonc, Pietromonaco, and Bargh (1982) state that:

> [a]ffective reactions can occur without the participation of cognitive processes .... One needs no labeling or evaluation or appraisal to suffer (or enjoy) the affective consequences of ten ounces of alcohol given unobtrusively. (p. 211)

In a critique of Zajonc's position, Lazarus (1984a) suggested that Zajonc's implicit definition of emotion was too broad because preferences and statements about attitudes are not necessarily of an emotional nature. Accordingly, Lazarus (1999) proposed that "[w]hat Zajonc took to be an aesthetic emotional response may be nothing more than a pro forma statement about preferences, indicative more of labeling than emotion" (p. 10). Elsewhere, Lazarus (1984b) argued that the most serious mistake that Zajonc made lies in his perspective on cognition whereby "information and meaning stem from the conception of

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[27] Izard (1982) commented on Arnold's views and suggested that her characterization of the appraisal process as a *sense judgment* makes it almost compatible with somatic theory. As suggested earlier, somatic theory does not directly address cognition or emphasize its importance in emotion. Its consideration appears to be implicit in James (1884, 1890) where the *unambiguous perception* of stimuli is discussed.

mind as an analogue to a computer[28]" (p. 249). Lazarus (1984b) adds that according to this perspective: "human cognition, like the operations of a computer, proceeds by serially receiving, registering, encoding, storing for the short- or long-run, and retrieving meaningless bits - a transformation to meaning that is called *information processing* [italics added]" (p. 249). He goes on to say that:

> [i]nformation processing as an exclusive model of cognition is insufficiently concerned with the person as a source of meaning .... If one accepts the principle that meaning lies at the end of a seriatim cognitive processing [like that of a computer], then accommodating the fact that we can react emotionally instantly, that is, at the onset of a transaction, forces us to abandon the idea that emotion and cognition are necessarily connected causally and to adopt the position that emotion and cognition are separate psychological systems. This is exactly what Zajonc does. However, we do not have to have complete information to react emotionally to meaning. We can react to incomplete information, which in fact we do in most ordinary transactions .... By and large cognitive appraisal (of meaning and significance) underlies and is an integral feature of all emotional states. Are there any exceptions? I think not. (pp. 250-251)

Elsewhere, Lazarus (1984a) holds that cognition can involve a conscious, rational, and symbolic process but that it can also constitute a "primitive evaluative perception" (p. 124). Zajonc (1984) responds by stating that: "Lazarus has broadened the definition of cognitive appraisal to include even the most primitive forms of sensory excitation" (p. 117). When one examines the various appraisal dimensions which have been proposed across theories (see Scherer, 1988b), it is quite obvious that they are often suggestive of a form of cognitive appraisal that is not primitive but rather one which implies complex mental calculus (see Scherer, 1993). Others have also suggested that Lazarus' treatment of cognition was too vague and broad (e.g., Kleinginna & Kleinginna, 1985) but have taken that of Zajonc to be too narrow (Baars, 1981; Kleinginna & Kleinginna, 1985). Cornelius (1996) clearly delineates and specifies the controversy between the disparate views held by Zajonc and

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[28] Despite Lazarus' (1984b) attempts to broaden the meaning given by Zajonc to the term *cognition*, it appears that Zajonc's perspective is not unusual. For instance, Way and Masters (1996) hold that *cognition* typically refers to "general mental computation or general information processing" (p. 215; see also LeDoux, 1989). However, like Lazarus (1984b), others have suggested that cognitive processing does not necessarily have to involve conscious processing (Kihlstrom, 1987; Öhman, 1999; Weiskrantz, 1986).

Lazarus:

> The difference between the positions of Lazarus and Zajonc boils down to how one ultimately defines cognition and appraisal. For Zajonc, the amount of processing of the information from a stimulus necessary for affect to occur is, as he says, "minimal." Because he seems to equate cognition with at least as much information processing as is needed to identify a stimulus, he must argue that cognition cannot be involved in the kind of quick and automatic judgments that are involved in the generation of affect .... When Lazarus talks about the characteristics of appraisal, he is talking about a very similar kind of processing - very fast, automatic, and only of the features of the stimulus essential for making judgments about the personal significance of the stimulus. Lazarus prefers to call this appraisal and consider it a kind of cognition, Zajonc does not. Thus, the difference between their positions is largely, I think, definitional .... There is another important definitional difference between Lazarus' and Zajonc's views .... This difference has to do with what each chooses to call emotion. Notice that Zajonc equates emotion with "affective reaction." Affective reactions are defined by Zajonc as "liking, disliking, preference, evaluation, or the experience of pleasure or displeasure" .... Notice also that the studies Zajonc presents to provide support for his position all involve very simple kinds of affective judgments, usually liking. These affective judgments are very different from the kind of emotional phenomena considered by Lazarus. Nowhere, does Zajonc discuss the kinds of cognitive processes involved in anger, sadness, fear, love, or guilt, and yet *these* kinds of emotions are Lazarus' central focus .... Given their differences in focus, it may be the case that *both* Lazarus and Zajonc are right. Lazarus' model applies to complex emotions and Zajonc's applies to very simple affective reactions. (pp.130-131)

Similar issues are raised in Leventhal (1984):

> Zajonc's (1980) argument is only sensible if cognition is defined as conscious, propositional thinking, or conscious recognition. All other cognition, such as perceptual categorization and nonconscious cognitive enrichment, are by this definition, noncognitive. (p. 281)

Buck (1988b, 1991) also suggests that a marked difference appears between Lazarus and Zajonc in the way *cognition* is defined. He states that: "Lazarus defines cognition in terms of knowledge by acquaintance and Zajonc in terms of knowledge by description" (1991, p. 109). The former represents "direct sensory awareness" (e.g., tasting something, seeing the color of something, etc.) whereas the latter "involves knowledge about sense data" (1991, p. 108) and is a more complex and deeper form of knowledge or knowledge of the inner nature of things (see also Lewis, 1999). Buck clearly bases his distinction on James (1890) who stated that: "through feelings we become acquainted with things, but only by our

thoughts do we know about them. Feelings are the germ and starting point for cognition, thoughts the developed tree" (p. 222). Buck (1991b) adds that: "[a]t some point, knowledge-by-acquaintance must be transformed into knowledge-by-description. Raw sensory and emotional information must become transformed into knowledge about this information" (p. 110). Somewhat similarly, Leventhal and Scherer (1987) have suggested that evaluation can take place at three different levels: the sensorimotor, schematic, or conceptual. Furthermore, they argue that rather than engaging in abstract discussions on the nature of cognition, researchers should try to establish the level and nature of the information-processing involved in generating emotion. Way and Masters (1996) provide an appealing and noteworthy contrast between emotion and cognition. They state that:

> [b]efore discussing a theoretical explanation of the ways affect might influence cognitive processing, we must first clarify how we use these terms. In our opinion, the debate over defining emotion and cognition has raised more heat than light because it has hitherto been largely semantic. Different theorists map the term *emotion* onto different stages of sensory processing, different behavioral phenomena, and different subjective experiences[29]. This reflects the fact that emotion is not an empirical entity; it is a term that has long been used in human discourse and has varied meanings and subtle nuances for different individuals and cultures .... In line with the use of affect in the state of fear, we limit its usage to observable components of the bodily state that may or may not be reflective of the internal state. The degree to which affect is manifested as self-reported, experiential emotion depends on the degree to which awareness is activated. Relegating the term *emotion* to the conscious realm is, moreover consistent with the origin of the word. The prefix e- is a derivative of *to be*, referring to an awareness of the self (Marcus, 1991). In operationalizing our definition of cognition, we narrow it from general mental computation or general information processing to objective transformations of perceptual input. Cognition involves identification and categorization of the stimulus to previously acquired information stored in memory. Such processing does not necessarily have to activate conscious awareness (Kihlstrom, 1987; Weiskrantz, 1986). Thus, cognition relates the stimulus to the world and other exteroceptive stimuli, affect relates the stimulus to oneself. Cognition is affiliated with the realm of reason and language, affect with the realm of passion and feeling. Cognition determines what a stimulus means, affect determines what a stimulus means *to me*. (pp. 213-215)

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[29] A similar perspective is offered in Cohen and Areni (1991) where the subordination of affect to cognition is discussed. They argue that this is reflected by emotion typically being "blended" onto conative and cognitive factors.

The debate between Zajonc and Lazarus has clearly marked and sensitized contemporary psychology to the meanings that surround the terms *emotion* and *cognition*. The issues raised by this debate are still being rehashed in recent work. For instance, Lewis (1999) argues that Zajonc's (1980) "one-to-one correspondence between stimulus elicitors and emotional responses ... is difficult to understand, especially in regard to the class of emotions called *self-conscious emotions*" which apparently are highly dependent on "ideas and cognitions about the self" (p. 125). Alternatively, Isen (e.g., 1999) has continually provided evidence which suggests that affect (i.e., mood states) impacts cognition which, in turn, generally counters the sequence proposed by appraisal theorists such as Lazarus. Other researchers have clearly adopted a stance that does not propose that affect and cognition are involved in some causal order (Bruner, 1986; Izard, 1993; Scheff, 1985). For instance, Izard (1993) has proposed that emotion can be activated by somewhat independent cognitive and non-cognitive factors. Similarly, Sorrentino, and Higgins (1986) have argued that it is impossible to separate the study of *hot affective* and *cold cognitive* processes. Instead, they suggest that the focus be on a *warm look* or a blending of the two that acknowledges that affect and cognition operate in parallel and in a mutually influential manner. Accordingly, Leventhal and Scherer (1987) proposed that it was extremely difficult to identify incidences of emotion-free cognition or cognition-free emotion. Scheff (1985), Sigel (1986), as well as Bruner (1986) have also suggested that affect and cognition are fused[30]. These views are generally opposed to the notion that one antecedes the other and echo recent neurophysiological and neurobiological research which suggests that emotion may involve a combination of neural paths (see Izard, 1992, 1993; LeDoux, 1989, 1995a, 1996; Plutchik, 1991).

LeDoux (1989) suggested that rather than focusing on and getting sidetracked by the issues which surround the definition of cognition, the nature of the information-processing which is presumed to antecede emotion can best be ascertained by an examination of neural

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30 Lazarus (1999) suggests that it is best to hold emotion and cognition as inseparable or "interdependent" rather than "fused." He adds that: "[f]usion and separation appear to be contradictory. Perhaps fusion is a stronger analogy than interdependence, which is the word I tend to use" (p. 12).

pathways. Elsewhere, LeDoux (1986, 1995a) proposed that within the brain, at the subcortical level, a ganglion called the Amygdala acts as a relay center which, in turn, receives and distributes signals from other areas of the brain involved in emotion. That the amygdaloid complex and other parts of the limbic system are somehow involved in emotion has been known for some time (Kluver & Bucy, 1939; Papez, 1937; Weiskrantz, 1956). Specifically, the role of the Amygdala as a relay center rests in that amygdalae receive sensory or afferent inputs from all sensory areas in the cortex (i.e., areas involved in transmitting information from the five senses) and are responsive to a wide range of affectively- valenced sensory input (Davis, 1992; Rolls, 1981). The affective valence of stimuli appears to be processed by the hypothalamus (Cannon, 1927).

LeDoux (1986) noted that the amygdalae receive input from the thalamus and the neocortex but that the pathway from the thalamus is several synapses shorter. Thus, the thalamic input may "prime the area to receive the better analyzed neocortical inputs, providing a crude picture of what is to come, narrowing the affective possibilities, and perhaps even organizing possible and actual responses" (LeDoux, 1986, pp. 345-346). The amygdalae also receive afferent or sensory input from the hippocampus which, in turn, receives its input from the sensory cortex and has been identified as the major structure for the involvement of cognition in emotion (LeDoux, 1989).

Recent brain lesion evidence suggests the independence of affect from cognition. This work has involved investigations of the consequences of lesions to the amygdalae or hippocampus. Generally, lesions to the amygdalae result in dramatic decreases in emotional responses but cognitive functions essentially remain intact (e.g., Adolphs, Tranel, Damasio, & Damasio, 1994; Zola-Morgan, Squire, Alvarez-Royo, & Clower, 1991). This evidence further stresses the role of the Amygdala as a relay center for afferent inputs. Buck (1991b) states that: "[t]aken together, the reticular formation, hypothalamus, amygdalae, and other limbic system mechanisms constitute a filter that determines the impact of a particular event for a particular individual" (p. 112).

On the other hand, emotional responses (e.g., skin conductance responses or SCRs; heart rate and blood pressure changes, facial muscle movements) are controlled by efferent

outflow from the Amygdala (Davis, 1992). Recent research stresses the importance of activation of neural pathways in the experience of emotion (LeDoux, 1993, 1995a, 1996). This view is in clear opposition to that which holds that there exist specific centers of emotion in the brain (see Leventhal, 1979; Petri, 1986; Zajonc, 1998). Various pathways have been proposed which link subcortical and autonomic systems (Gray, 1987; LeDoux, 1993; Rolls, 1990, 1995) and cortical and autonomic systems (LeDoux, 1989, 1993, 1995a). As discussed above, that the autonomic systems are active in emotion episodes (e.g., changes in heart rate, body temperature, etc.) has been known for quite some time (e.g., Cannon, 1927, 1931; James, 1884). LeDoux (1996) suggested that for instance, fear, can be activated independently of consciousness (cognition) because the fear system is independent of the conscious memory system.

After a thorough review of the pertinent literature, Izard (1993) proposed the existence of four alternate and perhaps redundant routes or paths of emotion activation that may be borrowed by signals to and from the amygdalae: the neurological, the sensorimotor, the affective or motivational, and the cognitive. Each path involves distinct functions and connects sensory perception of stimuli to manifestations of emotion in different ways through the Amygdala. These pathways are complex and interactive. The most basic of these paths is the *neurological* which provides an immediate response to threatening stimuli. It suggests that emotional responses may take place at a sub-cortical level with no involvement of higher levels of intellect. The *sensorimotor* pathway involves the detection of an emotion-evoking stimulus by the sensory thalmus and a transmission via the Amygdala to the central region of the brain. Detection occurs at a sub-cortical level and results in an emotional response which involves autonomic activity and hormonal release. This second pathway is said to be involved in the universality of facial expressions of emotion. For instance, Ekman (1992a) argued that the many facial markers of emotion such as those involved in genuine smiles are driven by sub-cortical processes and therefore remain beyond the scope of conscious manipulation. Moreover, the existence of such a pathway reinforces Darwin's (1896) early claim that "so many shades of expression are instantly recognized without any conscious process of analysis" (p. 359).

The *affective response* pathway is said to share similarities with its sensorimotor counterpart. It however not only involves the sub-cortical region but the cortex as well and results in a generalized emotional response involving emotional behavior and hormonal release. The *cognitive processes* pathway is said to involve all parts of the cortex and is therefore not limited to the sub-cortical regions. Because more paths are involved and more pre-processing is required in the hippocampus, it takes more time for the hippocampus to respond than it takes the Amygdala (see LeDoux, 1989). Perceptions arriving from the primary sensory thalmus are selectively controlled, organized, and filtered by the primary cortex. Many intervening processes which require processing time are involved. Perceptions are then transmitted to the Amygdala which stimulates an emotional response.

In sum, despite Lazarus's (1991a) claims that cognitive processes always underlie emotions and that they are necessary and sufficient for triggering an affective response (see Parkinson, 1997), the evidence reviewed above suggests that emotional responses may be generated by a separate pathway which involves complex sub-cortical responses which, in turn, affect hormonal levels and emotional behavior. This pathway is presented as partially independent of conscious control or cognition or of the cognitive pathway which is slower. In turn, this implies the greater importance of the affective pathway in generating emotional response in certain circumstances and more generally, that affective reactions can occur without the participation of cognition (LeDoux, 1989, 1996; Öhman, 1999). This, of course, lends credence to Zajonc's (1980) claims on the primacy and independence of affect (i.e., emotional reaction can occur prior to conscious stimulus identification) and therefore contradicts Lazarus' (1991a) claim that a cognitive antecedent is always involved in generating an emotional reaction.

More generally, components of emotion have been shown to be both the antecedents and consequents of emotional experience. Accordingly, Zajonc (1998) suggests that causal bidirectionality underlies many emotional phenomena and has added to the complexity which characterizes the field of emotion. For instance, autonomic arousal has been found to accompany several emotional states (e.g., Schachter & Singer, 1962). However, it may also contribute to these states (Zillmann, 1978). Furthermore, Izard (1982) states that: "[i]t is

generally agreed that emotion has three components - neurophysiological, motor-expressive, and what we variously term the subjective experiential, phenomenological, or conscious process" (p. 231). It is added that: "[e]motion-cognition interaction can occur in relation to any or all of these components" (p. 231). This notion has also driven associative network theories of emotion (e.g., Bower, 1981; Isen, 1984). For instance, Forgas (1999) holds that network theories of affect have sought to "link affect and cognition within a single, integrated and bidirectional representational system." Parkinson (1987) concurs with observations of bidirectionality and offers a broader perspective on the debate about the ordering or sequence of the events which result in emotional experience:

> Ever since James's (1884) theory of emotion, which reversed common sense by suggesting that bodily changes precede emotion rather than vice-versa, there has been considerable debate about the ordering of events that lead to an emotional response. In many aspects, these controversies are futile because there seems to be no fixed sequence to emotional response. Each of the factors of emotion can serve as either the cause or effect, and the syndrome occurs in a structural pattern, with the occurrence of one kind of affective event tending to recruit the other factors. Thus, the classes of variables which have been proposed as potential effects or expressions of emotion often appear also on the list of suggested causes. (p. 57)

Finally, that cognitions are affairs of the mind whereas emotions are those of the heart is a belief that may have impeded knowledge in the area of cognition and emotion (Damasio, 1994). Gray (1999) argues that:

> [c]artesian dualism is today sufficiently moribund that almost no-one denies that cognition, emotion, and conscious experience are all products of the brain. Yet there has long been a common, if usually unspoken, tendency to believe that somehow, discussions of the brain and these other entities belong to different, even opposing, realms of discourse. Fortunately, this barrier is beginning to break down, especially as cognitive scientists encounter the enormous opportunities for directly visualizing human brain function opened up by modern neuro-imaging techniques .... Emotion has also been usually left out in the cold by cognitive psychology, although this situation is rapidly changing (Oatley & Johnson-Laird, 1987). The frequently used synonym for cognitive function, "information processing" indicates why. It is easy to think of cognitive functions like learning, memory, attention and perception as the processing of information pure and simple; and equally easy, therefore to think in terms of programming computers to process information in similar ways. But emotions seem to call for something more than just the processing of information; and that something more is much harder to imagine as being instantiated in a computer program. (pp. 83-85)

1.2.3 Social Constructivism: An Interdisciplinary Perspective

The social constructivist[31] perspective on emotion is part of a larger social constructivist programme which spans across various fields of inquiry which include sociology (e.g., Coulter, 1989), psychology (e.g., Averill, 1980a, b, c; Gergen, 1985; Gergen & Davis, 1985), as well as anthropology (e.g., Rosaldo, 1989). Gergen (1984, 1985) suggests that social constructivism has attempted to remove the notion of self from its intraindividual cognitive bases and has placed it within social discourse. Accordingly, Kemper (1991) states that: "the social constructionists point out that the meanings that individuals examine in the texts of the world are socially derived .... Individuals are constantly composing and recomposing the world from the menu of choices that society offers" (pp. 327-8). Similarly, Gergen (1985) argues that: "what have been taken by one segment of the profession or another as 'facts about the nature of the psychological realm' are suspended; each concept (emotion, motive, etc.) is cut away from an ontological base and is made a property of the socius" (p. 11). Social constructivist perspectives on emotion have been referred to as *psychosocial* theories of emotion (see Metts & Bowers, 1994). Mandler (1992) suggests that:

> [t]he constructivist approach to emotion has not been the dominant view in the Western tradition, but it has illustrious cousins and ancestors. Previsions of modern constructivism can be found in both Aristotle and Descartes, and specific, though varied proposals have been advanced by the French philosopher Frederic Paulhan and the philosopher/psychologists William James and John Dewey. (p. 103)

In psychology, the constructivist perspective is presented as an outgrowth of the cognitive revolution of the 1970s (Harré, 1994). For instance, Averill (1975, 1980a, b), a constructivist, was a student of Lazarus, an appraisal theorist (Cornelius, 1996). Averill's constructivist research on emotion therefore partly revolves around how individuals interpret situations and on how these interpretations give rise to emotion. Many social constructivists

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31 The term *constructionist* also appears throughout the literature (e.g., Kemper, 1991) and refers to the same interdisciplinary movement. Because the movement involves researchers from a variety of disciplines, the discourse of some constructivists reveals clear psychological underpinnings whereas that of others is more oriented toward sociological theories of emotion. In essence, this section relates the contributions of James Averill, a constructivist psychologist, to the field of emotion. As we shall see below, these contributions are rooted in psychology but also draw heavily on the sociological and anthropological perspectives.

have also adopted the sociological perspective on cognition which is called *symbolic interactionism* (Franks, 1985). This adoption was fueled by the work of Schachter and Singer (1962) because of its emphasis on cognitive factors in providing a label for emotion and because it suggested a reduced role for hardwired processes in the generation of emotion. This downplay of biological and physiological processes appealed to sociologists who, in turn, have stressed the social determinants of emotion (see Kemper, 1991). Franks (1985) states that:

> [a]n adequate notion of social structure must include a path of constraint down from structure to individual possibilities of emotional experience. However, the distinctive thrust of symbolic interaction is to counter this process with the equally important voluntaristic supports and daily reconstructions of social structure which emerge upward and out from the interactive process. That is, structural accounts of emotions must show the steps by which emotional experience is constrained and shaped by the possibilities offered by the social, physical, and biological environments of selves, as well as how individuals' active daily involvements in constructing emotions, work upward to reconfirm, maintain, and change structures. This constructionism within restraint is mediated through the situations and circumstances that provide the concrete settings for action. (p. 162)

More generally, social constructivist research on emotion is centered on: (a) how emotions are embodied in the social practices of a culture including its language and (b) how emotions are involved in, constitute, and maintain the moral order of a culture (Cornelius, 1996). This emphasis clearly indicates the influence of anthropological and sociological perspectives on constructivism (for reviews of sociological perspectives on emotion, see Kemper, 1991, 1993). For instance, Sabini and Silver (1982) have provided accounts of how emotions constitute moral judgments and are thus presented as social constructions by their relationship to culturally-determined value systems. In this perspective, anger is presented as a form of moral reproach (Sabini & Silver, 1982). Another investigation of anger found that it emerged as a way to mediate between contradicting social norms and as a way to seek retribution (Averill, 1982). Fear, on the other hand, is presented as a way by which social values (Armon-Jones, 1986a) and social norms (Mesquita & Fridja, 1992) are maintained. The phenomenological methods which are favored by constructivists are often of the self-report variety (e.g., Averill, 1982; Smith & Kleinman, 1989) along with a variety of

qualitative methodologies such as participant-observation (e.g., Hochschild, 1983a).

An important notion that underlies much constructivist research is that a culture is reflected by its language and the language of emotion is variable across cultures. For instance, Mesquita and Fridja (1992) have indicated that affective lexicons vary from culture to culture and that the importance of one emotion in one culture may not be identical to that offered the emotion in another culture. It is therefore argued that the language of emotion is interwoven with a culture's wider social discourse (see Harré, 1994; Heelas, 1986). Thus, the manner in which we refer to emotions in the everyday language of our culture has a profound influence on how we interpret and experience our emotions (Cornelius, 1996; Ochs & Schieffelin, 1989). That cultural differences arise in the experience of affective states is exemplified in Heelas (1986) who suggests that some cultures "do not make distinctions of the 'mental-physical', 'body-mind' and 'emotion-cognition' variety" (p. 237). Moreover, the meaning of emotion words has been found to vary across cultures (Lutz, 1988; Lutz & White, 1986). In addition, some cultures have emotion words that have no clear analogs in the lexicons of Western cultures (e.g., Doi, 1973; Rosaldo, 1980; Wierzbicka, 1990, 1992, 1994). Observations such as these have impelled constructivists to stress the importance of sociocultural and sociopsychological variation in their analyses of emotion.

Social constructivist research on emotion transcends and deviates from the Darwinian and Jamesian views whose basic assumptions are rooted in biological and physiological phenomena. Reference to deterministic psychology and physiology is therefore minimized by social constructivists. However, physiological factors are often presented as concomitants of other cognitive, social, and cultural components of emotion (e.g., Averill, 1982; Hochschild, 1983a; Mandler, 1990). Constructivists therefore often draw heavily on the sociological and anthropological perspectives on emotion but yet incorporate enough psychology-based content in the theory for it to remain classifiable as psychological. This is especially apparent in Averill's work. Social constructivist research on emotion can thus effectively be viewed as interdisciplinary and as a middle ground between psychological, sociological, and anthropological perspectives. In the latter two perspectives, emotion is studied within a larger social or cultural context with an emphasis on sociocultural

determinants (see Coulter, 1983, 1989; Kemper, 1984; Lutz, 1988; Mead, 1975).

The interdisciplinarity of many constructivists is perhaps best exemplified by contrast to the position of purists. For instance, the sociologist Coulter (1983, 1989) has argued for the *depsychologizing* of emotion. Coulter (1989) suggests that the plasticity[32] of emotional expression is undeniably limited but that the limiting conditions are not caused by biological or physiological determinants. These factors are rather presented as facilitators rather than direct determinants. Such a position clearly indicates a downplay of the importance of physiological antecedents to emotion. On the other hand, some social constructivists, unlike some sociologists, have generally resisted the notion that plasticity is limited or constrained by providing arguments based on physiological concomitants of emotion (see Kemper, 1984). Therefore, constructivists have adopted a discourse which incorporates, in varying degrees, a variety of physiological and psychological concomitants of emotion. In other words, sociologists generally view emotions as social things (see Doyle McCarthy, 1989) or socially-determined occurrences (see Coulter, 1989) and emphasize sociocultural variation whereas social constructivists usually view them as partly sociocultural and partly psychological and physiological occurrences.

Mandler (1992) suggests that: "[c]onstructivist analyses see the experience of emotion as 'constructed' or composed of underlying processes" (p. 103). Constructivist studies have therefore investigated emotions as things that are defined, specified, observed, and comprehended as social occurrences or within a sociocultural context rather than "things in themselves" as positivist psychologists have done (see Gordon, 1981). However, like psychologists many have adopted a perspective in which emotion-related constructs can be

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[32] Coulter (1989) refers to plasticity in the following manner: "[t]here is an important distinction to be borne in mind between situations in which one is *supposed to have* a certain sort of emotion and situations in which, whether or not one is supposed to have it, one can hardly help but experience a certain sort of emotion. There are, then, clearly 'limiting conditions' to 'affective plasticity.' The question arises: are such 'limiting conditions' specifiable in *purely* biological or physiological terms?" (p. 47). More generally, in the psychological perspective on emotion, *high plasticity* refers to the notion that emotions share a common underlying stratum of ANS arousal. This stratum is therefore transferable among emotions and appears quite malleable. In accordance with this perspective, emotions are rather undifferentiated in terms of arousal (e.g., Cannon, 1927, 1931; Schachter & Singer, 1962). On the other hand, evidence has accumulated that differentiated or emotion-specific patterns or signatures of physiological arousal underlie some emotions (see Levenson, 1992).

quantified or whereby "feeling and passion - greed, anger, rage, tenderness - are *measured* [italics added] and sifted like flour" (Doyle McCarthy, 1989, p. 51). Thus, so as to assess various aspects of emotion, Averill (e.g., 1982) has made use of a variety of self-report methods (e.g., structured diaries) that resemble those that appear in purist pyschological research (e.g., Scherer, 1988a). Structured diaries are discussed in detail in Oatley and Duncan, 1994.

Emotions as Predominantly Social Constructs

According to Cornelius (1996), the social constructivist perspective on emotion is largely attributable to Averill (1975, 1980a, b, c, 1982, 1984, 1985). Averill (1980a) suggests that emotions are social roles or social constructions that are designed to serve as means to an end:

> emotions are not just remnants of our phylogenetic past, nor can they be explained in strictly physiological terms. Rather, they are social constructions, and they can be fully understood only on a social level of analysis. (p. 309)

He goes on to say that emotion is:

> a transitory social role (a socially constituted syndrome) that includes an individual's appraisal of the situation and that is interpreted as a passion rather than as an action. (p. 312)

Averill (1980a) defines a role as "a socially prescribed set of responses to be followed by a person in a given situation" (p. 308). A syndrome is presented as a set of events that occur systematically and concurrently. More specifically, emotion syndromes are *polythetic* or "not definable in terms of a limited number of characteristics" (Averill, 1980a, p. 308). Emotions can include the following components: (a) subjective experiences, (b) expressive reactions, (c) physiological responses, and (d) coping reactions (Averill, 1980b). The involvement of cognitive appraisals as antecedents to emotion is also stressed in this perspective. Situations are interpreted in relation to social norms and these appraisals guide emotional reactions (Averill, 1982, 1984).

Moreover, Averill (1980a) suggests that emotion is best defined in terms of *action*. However, the prevalent tendency to interpret emotion as passion suggests that individuals interpret emotions as things that happen to them rather than as things they produce (Averill,

1980a, 1982). This interpretation allows people to deny responsibility for their actions during an emotional episode (see also Averill 1974, 1980b, 1982). Accordingly, Averill (1980b, 1985) emphasizes the passivity which underlies the ways in which we think of, express, and experience emotion (e.g., one is *gripped* by fear; one is *seized* by anger; one is *paralyzed* by anxiety; one *falls* in love, one is *overcome* with happiness, etc.). That individuals view themselves as possessed by emotion and that they address emotion metaphorically in their speech demonstrates the widely-shared cultural bases of emotions (Averill, 1980b). Moreover, the view that emotions are interpreted as passions does not give primacy to biological and physiological determinants of emotions. Rather, it points to the complexity of how we interpret our emotional experiences and the physiological aspects of emotion are presented as a consequence of interpretation (i.e., cognition) (see Averill, 1974). This view is especially evident in Averill's (1982) account of anger and generally rejoins the tenets of appraisal theories of emotion. It is noteworthy that Averill was Lazarus' student (see Cornelius, 1996).

The *learned* rules which guide emotion are presented as social norms or the social constituents of emotion syndromes (Armon-Jones, 1986a, b; Averill, 1984). This consideration in Averill's work clearly displays a sociological penchant in constructivist explanations of what underlies emotion. These rules determine emotional conditions and reactions and "are represented psychologically as cognitive structures" (Averill, 1980a, p. 305). Accordingly, the components of emotions combine in a coherent manner guided by the socially determined rules underlying emotion roles. More specifically, as a social role, emotion represents the temporary enactment of a prescribed set of responses. These responses are regulated by a set of rules that guide: (a) the appraisal of a situation (e.g., Is this a situation in which it is appropriate to express sadness?), (b) the interpretation of bodily reactions which follow the appraisal (e.g., Is it sadness that I now feel?), (c) the behavioral response to the appraisal (e.g., crying), etc. (Averill, 1984). In addition, these factors are presented as (cross-)culturally variable (Armon-Jones, 1986b; Averill, 1982; Mesquita & Fridja, 1992).

Importantly, Averill's perspective on emotion holds that not every instance of any

particular emotion is necessarily associated with all four of the proposed components of emotion: "there is no single response, or subset of responses, which is *essential* to an emotional syndrome" (Averill, 1980b, p. 146). In other words, manifestations of any subset of the four components may be sufficient to define an emotional experience but none is absolutely necessary. Accordingly, Averill (1980a) states that: "[a]n emotion syndrome may include many diverse elements, some of biological and some of social origin, but none of which is essential to the identification of the syndrome as a whole" (p. 308). Furthermore, Averill (1980a) argues that:

> [f]rom a constructivist point of view, there are indefinite number of emotions. That is, societies can shape, mold, or construct as many different emotions as are functional with the social system. (p. 326)

In this perspective, no emotion, as a social construction, is more basic than another but some may involve more physiological concomitants than others (e.g., fear compared to hope). Moreover, constructivists have argued that cultures show variation with respect to the construction of emotion categories. This finding has further contributed to a downplay of the notion of *basic emotions* in constructivist research. No universal set of basic emotions has therefore been suggested across cultures and languages (e.g., Harré, 1986; Lutz, 1988). Alternatively, the importance of a particular emotion is judged vis-à-vis the sociocultural context in which it is experienced. The social functions of emotions are therefore presented as variable from one culture to another. For instance, shame and guilt have been shown to serve different value systems across cultures (Armon-Jones, 1986a, b; Demos, 1988).

Sociologists who have demonstrated a constructivist penchant on emotion have usually adopted *symbolic interaction* (Blumer, 1969) as a discourse (see Kemper, 1991). In particular, Hochschild (1979, 1983a, b), whose perspective on service agents is discussed in detail in the next chapter, appears as a staunch constructivist. This perspective is also evident in Thoits (1985, 1990) as well as in Denzin (1984, 1985, 1990). Clear parallels may be drawn between Hochschild's (1979, 1983a) social theory of emotion and Averill's characterization of the emotion process. Both are inherently interdisciplinary and thus involve many levels of discourse on emotion. The sociological components of the constructivist perspective on emotion are brought to the forefront in the next chapter.

CHAPTER 2

SOCIOLOGICAL PERSPECTIVES ON EMOTION AND HOCHSCHILD'S SOCIAL THEORY OF EMOTION

> Whenever a social phenomenon is directly explained by a psychological phenomenon, we may be sure that the explanation is false.
>
> -Emile Durkheim (1895)

Psychologists generally view emotions as intrapersonal phenomena or as "things in themselves" (Doyle McCarthy, 1989, p. 51). This is especially evident in the Darwinian and Jamesian perspectives on emotion discussed in the previous chapter. Kemper (1984) states that: "[e]ven where the social has seemed to play a part in psychological investigations of emotion, it has been scanted and left relatively undefined" (p. 369). Nevertheless, Kemper (1984) suggests that the most basic tenets of psychological theories do not exclude the participation of social processes in emotion:

> A fundamental idea about emotions is that they have evolutionary survival value .... This truism about emotions is ordinarily taken to reflect the distinctly biological property of emotions, from which sociological interests are ordinarily excluded. However, when we examine the biological survival value of emotions, we see that biological survival entails not merely the survival of organisms, but the preservation of patterns of social organization, or perhaps change of pattern to a more adaptive form. This does not mean that all emotions in all instances are adaptive for group survival. But when groups and their particular structures do survive or adapt, emotions have played a significant part. (p. 373)

The role of social and cultural factors in emotion is primordial to the sociological perspective on emotion. For instance, Kemper (1984) proposes that: "[i]ndeed the central contribution of a sociological approach to emotion is the specification of a comprehensive model of the social environment" (p. 370). The behavioral (expressive) component of emotion is often discussed in sociological discourses on emotion where it is presented as a function of others and the wider sociocultural environment. On the other hand, one common underlying theme in classic theories of emotion within psychology has been that expressions of emotion occur, to some extent, independently of normative constraints and notwithstanding the approval and disapproval of others (Graham, Gentry, & Green, 1981). Generally, sociologists emphasize that emotions are socially constituted and controllable; and

in some instances, they make no assumption about emotions being felt (Zurcher, 1982, 1985). Much of the literature on the regulation of emotions stems from sociology (Scherer, 1982a). Accordingly, Kemper (1993) states that:

> the social matrix determines *which emotions are likely to be experienced when and where, on what grounds and for what reasons, by what modes of expression, by whom.* As the social matrix changes, so do all of the parameters of the emotion formula just presented. Sociological models of emotion theorize the social matrix and its parameters .... There can be no argument that social relations produce emotions. (pp. 41-42)

Elsewhere, Kemper (1991) further delineates psychological and sociological approaches to emotion:

> To make stark (and to oversimplify) the differences between a psychological and a sociological approach to emotions, it can be said that for the most part psychologists study emotions as a property of generic human beings, while sociologists study emotions as a property of socially specific people, alive in a particular time, living a particular culture in particular circumstances. For the most part, those circumstances are socially determined. Psychological accounts of emotion often convey the sense of Aristotelian essences, properties of the species across time and space. By contrast, sociological accounts reflect, to some degree, the biography of an age, a culture, and a location in a social structure, whether of social class, gender, ethnicity, occupation, or other social differentia. (pp. 301-302)

Clearly, sociologists offer an examination of emotion at a different level of analysis than that demonstrated by psychologists (i.e., the individual). According to Kemper (1991), the sociological perspective on emotion implies three fundamental ideas:

> First, the source of many emotions is the social transaction that preceded their occurrence. To understand why certain emotions are experienced at all, we must look primarily at prior incidents of social relations .... Secondly, there is a normative component to emotions, and individuals are responsive enough to it to make efforts to change their emotions when they find themselves out of tune with the prevailing normative order .... In this way, social regulation of emotion leads to a certain uniformity of emotional presentation. Thirdly, over long historical periods emotion options and the normative requirement for them change. This means that emotions, at least as yoked to certain social contexts and situations, are subject to change as new relational practices and their accompanying mental constructions make older emotional expression personally and socially dysfunctional. (p. 311)

Importantly, it is useful to note that many sociologists do not view emotions as strictly social occurrences. Rather, they emphasize its sociocultural determinants and yet

acknowledge the existence and importance of other nonsocial factors. In reality, many of the various sociological perspectives on emotion that have been proposed were developed in conjunction with other disciplines which have included psychology and physiology (see Denzin, 1984; Doyle McCarthy, 1989; Hochschild, 1983a). For instance, Doyle McCarthy (1989) states that:

> [i]t is not unfair to say that many leading sociologists of emotions, in varying degrees and with different emphases, view emotions primarily as psychological-physiological states that have sociocultural concomitants. (p. 53)

2.1 Sociological Theories of Emotion: General Perspectives

In general, sociologists have attempted to specify, define, and conceptualize the various elements or categories of the social environment (e.g., social class, normative rules, hierarchy, power, status, etc.). What characterizes these elements as part of sociology is that they do not underlie the functioning of individuals. Rather, they are organizational or relational constructs. Therefore, "[t]hey are the properties of relationships or of groups" (Kemper, 1984, p. 370). Sociological theories of emotion relate some of these elements to emotional phenomena.

Classical theorists in sociology incorporated or touched on emotion in their discourse without much specification. For instance, Marx (1964, 1971) addressed socially produced misery and class antagonisms. The central "emotions" discussed in Marx were class consciousness and alienation (Kemper, 1991). Durkheim (1897/1951) viewed suicide as emotional expression and explained differences in suicide rates among various social categories based on religion, gender, etc. Later, Durkheim (1915/1965) suggested that emotions are "représentations collectives" or social categories represented by the collective (i.e., plurality of individuals) and that they are specific to a particular society. The notion that religious worship generated emotions was also stressed and that any form of ritual activity actually amplified emotion. Emotion was viewed as something that provides a connection among the members of society. Accordingly, Kemper (1991) holds that: "[i]f we now reflect on what the sacred is in Durkheim's view, we see that ritual and the emotions it arouses are central to the constitution of society" (p. 310). Weber addressed emotion even more generally than Marx and Durkheim. For instance, Weber (1946) argued that Western society was

headed toward disenchantment and the excising of nonrational elements in favor of social organizations which favored technical mastery and rational administrative forms of control. Elsewhere, Weber (1958) examined the relationship between the stringent doctrine of Calvinism, the anxiety and despair that at first it created in Protestants, and the consequent emergence of entrepreneurial capitalism (reinvestment rather than the expenditure of profits from daily work activities).

More recent and slightly more specific attempts to explain emotion were apparent within sociology over the 1960's. For instance, Homans (1961) associated anger and guilt to inequities in distributive justice or social exchange. Later, Anderson, Berger, Zelditch, and Cohen (1969) discussed "embarrassment and guilt" and "anger and dissatisfaction" in relation to various forms of rewards. Garfinkel (1967) also discussed anger and embarrassment within social relations. These and other various perspectives have all presented emotion without much specification of their nature and of their antecedent conditions. Nevertheless, emotion was clearly presented as a phenomenon of interaction in early sociological discourse.

Sociological investigations that have focused on emotion are a rather recent phenomenon. All have tended to view emotion as something that occurs within a particular social context. However, as Kemper (1991) puts it: "[a]mong any set of N sociologists of emotions, it seems almost as if there were N + 1 opinions as to what the problems are and how to think about them" (p. 303). Accordingly, Doyle McCarthy (1989) states that the "sociology of emotion is about a decade old and yet the precise object of that field of study has yet to be adequately identified" (p. 51). It is also suggested that psychological perspectives on affect have influenced the sociology of emotion: "[i]t is not unfair to say that many leading sociologists of emotions, in varying degrees and with different emphases, view emotions primarily as psychological-physiological states that have sociocultural concomitants" (Doyle McCarthy, 1989, p. 53). Sociologists have indeed tended to adopt definitions of emotion from other fields and especially from psychology and physiology (see Shott, 1979; Kemper, 1984, 1991). Furthermore, some sociologists have adopted psychological findings as the basic tenets of their perspective on emotion (e.g., Denzin,

1984) while others have incorporated them only to some extent (e.g., Hochschild, 1983a). Still others have suggested the view that sociologists and investigators from other disciplines should integrate a variety of perspectives and synthesize a multidisciplinary science of emotion (see Baldwin, 1985; Franks, 1985; Kemper, 1981, 1991; Scheff, 1983, 1985b) whereas purists have argued for the development of a 'stand alone' or uninfluenced sociology of emotion (e.g., Coulter, 1989; Doyle McCarthy, 1989). For instance, Doyle McCarthy (1989) clearly placed emotions entirely within the social realm by stating that emotions are "social objects, formed by a social process, generated by actors and groups who have rendered people's feelings and 'emotional lives' of social significance" (p. 65).

Thoits (1989) argues that although research on emotion by sociologists is rather scarce and in its beginnings, a profusion of distinct theories of emotion have been proposed. Thus, modern sociology boasts a variety of perspectives from which emotions have been addressed. These include *social structural approaches* and those based on *cultural analysis*. Each stresses different aspects of the social realm in guiding behavior (e.g., Goffman, 1959, 1967) or in eliciting and regulating inner experience (e.g., Hochschild, 1979, 1983a; Kemper, 1978). The fundamental notion which underlies these theories is that "emotions are socially-constituted" (Kemper, 1991, p. 311).

2.1.1 Social Structural Approaches to Emotion

Social structural approaches generally hold that an individual experiences emotions directly from his/her involvement in social relations or through membership in certain social positions that expose him/her to certain kinds of social relations (e.g., Goffman, 1967; Heise, 1979; Hewitt, 1994, Kemper, 1978, 1991; Smith-Lovin, 1988, 1990). Social interactionists and structuralists generally view the self as a social object that "is constructed in everyday life as people make and take roles that firmly link them to social structure" (Hewitt, 1994, p. 155). This view is, for instance, evident in Gerth and Mills (1964) who suggested that social institutions shape the character or personality of their employees (see Hochschild, 1983a).

A concise sociological theory of emotion was presented by Kemper (1978, 1987) whose basic tenet was that "events in the social environment instigate emotions" (1978, p.

26). Specifically, emotion elicitation was presented as a function of *power* and *status*[33]. These two dimensions are generally presumed to underlie structural relations. Accordingly, Kemper (1991) stated with respect to *structural approaches* that "[e]ach structural condition of relationship produces its associated emotion" (p. 323). Moreover, Kemper (1978) argued that one's own and another's emotions can be categorized as (a) structural, (b) anticipatory, or (c) consequent with respect to the state of the relationship in which they are expressed. The structure of emotion proposed by Kemper (1978) is clearly categorical in that discrete emotional states emerge from the suggested process. For example, in situations where one's power is in excess, Kemper's theory suggests that one will feel guilt-anxiety. On the other hand, when one's power is insufficient, then one will feel fear-anxiety. Moreover, a clear appraisal theory perspective underlies Kemper's (1978) propositions in that evaluative judgments, "interpretations," or "definitions of the situation" with respect to power and status dimensions are presented as essential (and even sufficient) for having and determining emotional experience. Accordingly, Kemper (1984) states that:

> [t]he particular utility of the power and status dimensions is that they permit the heuristic assumption that *all* social relations can be located in a two-dimensional power-status space, and that changes in social relations may be understood as changes in the power and status positions of actors. Actors relate to each other in structures of power and status, and in their interactions with each other express or change the relationship structure by acts that signify particular levels of power and status ... if we wish to predict or understand the occurrence of many human emotions we must look at the structure and process of power and status dimensions between actors. This approach encompasses both the distressful emotions - anger, depression, guilt, shame, anxiety - as well as the positive emotions - happiness, security, pride, righteousness, and love ... (p. 371)

Durkheim (1915/1965) suggested that the importance of ritual lies in its ability to sustain social fabric. That emotions are not only determined by social structure but that they also sustain social structure by reenactment is suggested in Collins (1981, 1984) as well as

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[33] It is noteworthy that Kemper (1991) argues that the two dimensions which he proposed have clear analogues in the work of psychologists. In particular, he points to evident similarities with the dimensions of (E) evaluation and (P) potency proposed in Osgood, Suci, & Tannenbaum (1957). Various attempts have been made to use a dimensional perspective on social situations and to consequently predict the emotions that would appear in varying contexts (for example, see Averett & Heise, 1988; Heise, 1979; Smith-Lovin & Heise, 1988).

in Goffman (1959, 1967, 1974). For instance, Collins (1984) argued that the social is "nothing more, on the most fine-grained empirical level, than repeated patterns of face to face interaction" (p. 385). A similar perspective appears in Goffman (1974) where interaction is decomposed into frames or moments. Collins (1984) adds that:

> [t]hese interactions have a *ritual* quality, which reproduce, increase, or decrease the emotional energies of individuals. Both the statics of repetitively reenacted social structure and the dynamics of social change are crucially mediated by the social production of emotions. (p. 385)

Elsewhere, Collins (1975, 1990) has presented emotion within the context of conflict within various arenas which include modern organizations. A clear structural demarcation or stratification was proposed between *order-givers* and *order-takers*. This categorization was based on the power dimension discussed in Kemper (1978) (see also Kemper, 1987; Kemper & Collins, 1990). Differences were presented between the emotions experienced by individuals in the two strata. For instance, order-givers (bosses, managers, etc.) were found to be confident, secure, and charged with emotional energy whereas order-takers had to live with resentment, boredom, and indifference. Clearly, the direct effects of social structure on the experience of emotion are presented in Collins' work.

Goffman (1959, 1967) was among the first to stress the role of daily social relations and social situations in the elicitation of many forms of behavior which implicitly included the enactment of emotion. He provided a dramaturgical metaphor for the analysis of daily or routine interaction. The notion of dramaturgy was made particularly evident in Goffman (1959, 1967) where people were presented as actors who actively managed outer impressions but who did not manage inner feelings. Consequently, a variety of more recent sociological perspectives on emotion rest partly or greatly on arguments which are rooted in Goffman's dramaturgical analysis (e.g., Hochschild, 1983a; Zurcher, 1982, 1985). For instance, Zurcher (1982) states that: "[d]ramaturgically considered, emotion, or more accurately the performance of emotion, is enacted by the individual in terms of his or her understanding of appropriate emotional behaviors in a particular situation" (p. 2). Elsewhere, Zurcher (1985) suggested that organizations impose emotion scripts on its members and argued for the use of dramaturgical analysis in that it "can readily incorporate micro-interactional and macro-

organizational factors in research on emotion" (p. 202). However, dramaturgical analysis is not without its critics (see Wilshire, 1982). Other concepts which suggest a dramaturgical perspective include *self-presentation* and *impression management* (Jellison & Arkin, 1977). Snyder (1979) suggests that:

> [a]s every beginning student of psychology quickly learns, the public appearance of another person's words and deeds can readily be heard and seen; by contrast, the private reality of that person's attitudes, feelings, and intentions can only be inferred. How, then, are we as observers of human behavior to understand other individuals? Are we to regard their verbal and nonverbal expressive behaviors as accurate reflections of and meaningful communications about their actual attitudes, affective states, and personal dispositions? Or are we to regard their actions as deliberate attempts to strategically create an image appropriate to a particular situational context, to appear to be the right person in the right place at the right time? That individuals strive to influence the images that others form of them has been noted time and time again by students of human nature. Such processes of '*impression management*' are in the core of Goffman's (1955, 1959, 1963, 1967) theory of presentation of self in everyday life. He has described social interaction as a theatrical performance in which individuals may have many motives for trying to control the impressions that others receive of them and of the nature of their interaction. In particular, the desire for social approval and the motive to control the outcomes of social interaction will result in impression management. (p. 182)

In Goffman's (1959, 1967) perspective, individuals attempt to behave appropriately or to play a role by expressing appropriate emotions with respect to situational norms because material or other rewards and costs are contingent upon approval and disapproval of others (Jellison & Gentry, 1978). Goffman (1959) provides a general summary of his position:

> [t]o summarize, then, I assume that when an individual appears before others he will have many motives for trying to control the impression they receive of the situation. This report is concerned with some of the common techniques that persons employ to sustain such impressions and with some of the common contingencies associated with the employment of these techniques. The specific content of any activity presented by the individual participant, or the role it plays in the interdependent activities of an on-going social system, will not be an issue; I shall be concerned only with the participant's dramaturgical problems of presenting the activity before others. The issues dealt with by stage-craft and stage management are sometimes trivial but they are quite general; they seem to occur everywhere in social life, providing a clear-cut dimension for formal sociological analysis. (p. 15)

Goffman (1959) adds that:

> [o]ur day is given over to intimate contact with the goods we display and our minds are filled with intimate understandings of them; but it may be well that the more attention we give to these goods, then the more distant we feel from them and from those who are believing enough to buy them. To use a different imagery, the very obligation and profitability of appearing always in a steady moral light, of being a socialized character, forces one to be the sort of person practiced in the ways of the stage. (p. 251)

Goffman displayed much interest in the emotions of embarrassment and shame. Embarrassment in particular emerges as a social emotion (see Miller & Leary, 1992). To Goffman (1967), these emotions emerged as the consequences of not living up to a line (or claim) one has proffered during interaction with others. Consequently, Goffman (1967) suggested that poise was required on the part of the actor to assure that a conversation goes well. Later, Goffman (1981) proposed that a variety of emotions can emerge in or accompany conversation and argued that it was the various *forms of talk*, rather than the content of conversations, that created emotions. Nevertheless, Goffman's general focus was not on emotion *per se* but rather on the behaviors and consequent impressions social actors conveyed to other social actors in a cooperative manner. This perspective did however imply differing behaviors in backstage situations as opposed to when one is before an audience. Before others, one reads the situation, plays the part that is suggested by the situation, and conveys a controlled and acceptable impression that is usually motivated. In backstage settings, Goffman (1959) argued that one can afford less dramaturgy or that the social constraints on behavior are relaxed in these settings. Away from the primary audience, it is thus permissible to express oneself freely and talk about such things as one's anger or depression.

Goffman's propositions were firmly grounded in Durkheim (1915/1965) who had suggested that emotions are enhanced or heightened in the presence of others engaged in some form of ritual activity. Specifically, Goffman (1959, 1967) emphasized the role of ordinary conversation and simple or common forms of interaction as rituals between social participants in guiding behavior and thus, as a fundamental context of social relations. Similarly, Turner (1996) states that: "[r]ituals not only jump start emotions, but they also

select and direct actors to emit and read the relevant and appropriate emotions in a situation" (p. 304). Importantly, Goffman's actors are presented as rather passively enacting roles in somewhat unconsciously ritualized performances (Hochschild, 1983a).

Shott (1977) has clearly extended the dramaturgical perspective to emotions by suggesting that social interaction requires the active "role-taking of emotions" (p. 318). This view is particularly evident in Hochschild (1983a) who has vehemently argued that Goffman's perspective says very little about inner experience and has proposed that feelings involve an inner reality and that they are managed. In other words, feelings, in Hochschild's (1983a) perspective, do not simply constitute aspects of the many impressions that we give out; rather, their analysis must include a focus on inner experience or on the *self*. The structural conditions examined by Hochschild (1983a) were the constraints of the work environment on emotional expression and experience. A form of emotion management was observed by Hochschild (1983a) among airline stewardesses and emerged as a major theme of her study. Accordingly, Perinbanayagam (1989) argues that:

> emotions are presented in ritualized form so that control, management, and proportions are maintained. Human performances are never distant from aesthetic considerations and in the management of emotions, one is trained to maintain proper ratios between situation, identity, and audience. (pp. 78-79)

Finally, a structuralist perspective on emotion is also evident in the work of Heise (1979, 1988, 1989; Smith-Lovin & Heise, 1988). *Affect control theory* (ACT) stems from a research programme which has attempted to understand how emotions arise from evaluations of objects and events. It has involved investigations of the dimensional structure of situations/events and the emotions which emerge from differences in social structure (Heise, 1988). Kemper (1991) holds that the basic idea behind ACT is that "individuals behave out of a homeostatic need to maintain their fundamental identity" (p. 321). Thus, if one's behavior deviates from one's basic and fundamental sense of identity (e.g., good parent) and takes on the characteristics of behaviors associated with transient identities (e.g., cruel parent), compensatory or reparative action will be undertaken to return one to a comfortable sense of self (Heise, 1988, 1989). In this perspective, emotions are produced by various discrepancies between basic and transient identities (Averett & Heise, 1988). The structural

roots of this theory are apparent in that emotions are generated in actors based on their relations with others.

In summary, Kemper (1991) argues with respect to the social structural approach to emotion that:

> [s]ociologists who use the social structural approach are usually concerned with predicting emotions from the social relations in which actors are engaged. This ordinarily assumes that there is a natural (or pancultural) universal emotional response to certain kinds of social relations. One of the most important differences between the social structural and the cultural orientation to emotions is in whether this assumption is correct. (p. 323)

2.1.2 Cultural Analysis

Another framework for the study of emotion in sociology is *cultural analysis*. It has revolved around the normative social definition of situations. The emphasis here is no longer on the social situation (i.e., structural approaches) but rather on the rules for emotional expression evoked by a particular situation or event. Nevertheless, the two major sociological perspectives on emotion do tend to converge in that they both suggest that social factors determine emotion. The main difference between the two approaches lies in what is emphasized in the analysis. In one, emotion is directly generated by the enactment of one's social position and/or by the social relations between participants (e.g., order-takers vs. order-givers). In *social structural* approaches, emotions are therefore instigated by "the relational exchanges between the actors" (Kemper, 1991, p. 312).

In contrast, *cultural analysis* introduces an additional aspect. It looks primarily at the social regulation of emotion by normative constraints and "the rules that are laid down for the emotions it is appropriate to feel in them" (Kemper, 1991, p. 323). This perspective is quite apparent in Goffman's (1959, 1967, 1974) viewpoint which has emphasized the role of social rules in guiding the impression that is projected during interaction. Goffman (1959, 1967) presented people as playing characters and cooperatively interacting with other people who also are playing characters. In Hochschild's (1983a) terms: "[t]he works of Erving Goffman introduce us to the many minor traffic rules of face-to-face interaction, as they emerge in a card game, in an elevator, on the street, or at the dining table of an insane asylum" (p. 10). In fact, Hochschild (1983a) has suggested that Goffman's perspective, has

overemphasized the normative constraints and rules of social interaction and has almost entirely deemphasized the importance of inner experience. Accordingly, Goffman's (1959, 1967) approach stresses the moment and its rules which guide the actor's performance (behavior) but has little to say about the actor's self and his/her inner experiences. The focus is on the rules of the moment, the situation, or frame rather than on the person.

That one is to display happiness at a wedding and sadness at a funeral are typical examples of the normative constraints generally discussed in *cultural analysis*. This theory therefore goes beyond the *structural* approach and its tenet of direct elicitation of emotion by structural conditions (e.g., Kemper, 1978). Accordingly, Kemper (1991) has suggested that cultural forces can indeed force emotions in a direction they would not normally take. He adds that "(culture) thus constructs emotions by providing a convention of feeling, a guidebook for what is legitimate in the circumstance, with sanctions provided for not feeling what is prescribed" (p. 323). Perinbanayagam (1989) states that:

> [f]or example, adult males in American society are expected to perform in public in a stoic and restrained manner when confronted with grief. Women are granted a greater latitude in giving physical expression to their grief by means of tears. However, under no circumstances is the injunction relaxed which requires that certain ratios be maintained between situation and the emotions expressed. Whether it is grief or joy, love or hate, shame or fear, they are subject to a discipline in their expression. Insofar as such disciplines reflect social boundaries of expression and control, they also function in controlling what and how one feels. And for this reason, one feels as one expresses and expresses as one feels, though the overlap may not always be perfect. (p. 79)

Similarly, Shott (1979) suggested that social norms determine emotion: "[s]ocial norms clearly have an impact on the ... arousal of emotion" (p. 319). On the other hand, Kemper (1981) argued that normative rules are not the causes of emotion but that they are rather "epiphenomenal, pointing to the mere surface of the phenomena rather than to its *(sic)* explanatory core" (p. 345). In a like vein, Coulter (1989) proposes that social norms are "rules which govern the rationality and intelligibility of situated reasons for the having of emotions wherever such locally-occasioned reasons are avowed or ascribed by agents" (p. 45). Thus, Coulter (1989) suggested that these rules are not the causes but are rather the *grammar of affect*. He adds that:

> [b]ut no social rule can be appealed to *in a causal framework for generalizing explanation*. For any rule can be broken; no rule coerces any given outcome automatically or as a sufficient antecedent condition for an effect any more than a rule of grammar determines what someone says or how he actually says it (one can speak ungrammatically). What rules of conduct *do* determine is not behavioral outcomes after the fashion of causal connections in the physical, chemical or biological domains, but rather the intelligibility, rationality and appropriateness of whatever *is* said, done, seen, heard or in some other way experienced .... Rules determine *what count* as "proper" moves in language-games, domains of practice, interaction sequence, and so forth, but they do not themselves determine specific moves. (pp. 45-46)

Hochschild (1979, 1983a), Thoits (1985, 1990), as well as Gordon (1981, 1990) have all focused on the management of emotions and have therefore argued from the perspective of cultural analysis. Specifically, they have tried to understand the process whereby and the circumstances in which actors adjust their feelings to what is normatively prescribed or expected. To a lesser extent, this also appears as a theme in Goffman's (1974) later work where he attempted to decompose social situations into *frames* and to identify the rules of interaction and the microacts which are addressed by the rules. Together, these aspects were taken to enable an actor to define or allow him/her to conceptualize the relevant elements of a situation and to behave accordingly. Earlier, Goffman (1967) suggested that this process occurred rather unconsciously on the actor's part and the focus rested on how rules applied to what one thinks and to the manner in which one overtly behaves. The relation of rules to emotion was left rather unspecified (Hochschild, 1983a).

2.1.3 Symbolic Interaction

More generally, the cultural perspective on emotion seems quite in line with those of psychologists who claim that cognition plays an important role in emotion. Specifically, it appears quite congruent with the views of Averill (1980a, b, c) and Lazarus (1984a, 1991a) discussed in Chapter One. However, sociologists have tended not to endorse psychological theories. Rather, they have derived their position on the role of cognitions or interpretations from *symbolic interactionism* (Kemper, 1993; Shott, 1979). Specifically, the theory of *symbolic interactionism* draws close attention to the cognitive processes of actors who interpret the meaning of stimuli in order to choose a course of action (Kemper, 1991). Shott

(1979) argues in favor of this perspective on emotion:

> Within the limits set by social norms and internal stimuli, individuals construct their emotions; and their definitions and interpretations are critical to this often emergent process. Internal states and cues, necessary as they are for affective experience, do not in themselves establish feeling, for it is the actor's definitions and interpretations that give physiological states their emotional significance or nonsignificance ... symbolic interactionism is well suited for bringing out the interplay of impulse, definition, and socialization that is central to the construction of feeling. (p. 1323)

Kemper (1991) adds that:

> [s]ymbolic interactionism stands with those groups in psychology that reject behaviorism, the notion that actors simply respond to stimuli. Rather, they say, a stimulus is itself a construction by the actor, and any response to it is mediated by a process of interpretation in which the actor indicates to him or herself the meaning of the stimulus object for a potential course of action. (p. 324)

Much work on the development of symbolic interaction is attributed to Blumer (1969) who viewed the meanings that we attribute to things as a function of the interests and goals of the self. Nevertheless, at its core, this perspective generally rejects "conventional models of science" and "scoffs at the possibility of predicting how mind and self will fare in the process of role-taking and self-indicating of meaning, or what evaluations and final choices will be made" (Kemper, 1991, p. 327). The treatment of emotion by symbolic interactionists stresses the symbolic and cognitive nature of the process rather than its physiological concomitants as proposed by many theorists of the somatic perspective on emotion. Drawing largely on Schachter and Singer (1962)[34], some symbolic interactionists

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[34] Kemper (1991) holds that the conclusions reached in Schachter and Singer (1962) appealed to some sociologists because arousal, a physiological concomitant of emotion, was given a small role in the emotion generation process in that it was presumed identical across emotions. On the other hand, it was proposed that individuals provide a label for what they feel through cognition. Cognition thus became the important aspect of the emotion process and this led to the endorsement of this research by symbolic interactionist sociologists. In addition, it is noteworthy that there is much overlap in thought and content between sociological and psychological perspectives. For instance, the notion of *expectation* is presented as a cognitive construct in psychology and is also taken as reflective of the norms that guide emotional behavior (see Wilson & Klaaren, 1992). On the other hand, sociological perspectives do not discuss role of expectations per se in emotion but rather refer directly to normative rules and constraints (see Kemper, 1991, 1993). Although different terminologies are used, many theories within psychology and sociology tend to be hybrid perspectives that are a blend of core theories within mother disciplines. This is especially eviden in constructivist research (e.g., Averill, 1980a, b, c, 1982; Hochschild, 1983a; Mandler, 1990).

(e.g., Coulter, 1986; Gordon, 1981; Hochschild, 1983a; Shott, 1979) have suggested that "culture and cognitive processes control emotion and that specific emotions do not flow from specific situations, as the social structural psychologists maintain" (Kemper, 1991, p. 328). This view launched a strong debate which mostly took place in the American Journal of Sociology (see Kemper, 1983, 1987; Shott, 1979, 1980; Hochschild, 1983b; Hunsaker, 1983).

2.2 Hochschild's Interactional Theory of Emotion

The importance of the social in dictating felt and expressed emotion is particularly evident in Hochschild (1979, 1983a) whose work has reflected the three sociological approaches discussed above (social structuralism, cultural analysis, and symbolic interactionism) and has partially grounded emotion on the part of service employees in sociological theory. Because of her interactionist themes, Hochschild's (1979, 1983a) stance on emotion has also been associated to that of constructivists (Kemper, 1991). Hochschild (1983a) has in fact incorporated notions from a variety of perspectives which include the psychological. Hochschild (1983a) found that social explanations required additional elements for a more complete explanation of the process she called *emotional labor.* Accordingly, she holds that a combination of three different discourses appeared necessary to account for the phenomena she observed:

> Our search for answers to these questions leads to three separate but equally relevant discourses: one concerning labor, one concerning display, and one concerning emotion. Those who discuss labor often comment that nowadays most jobs call for a capacity to deal with people rather than with things, for more interpersonal skills and fewer mechanical skills .... A second discourse, closer to the person and more remote from the overall organization of work, concerns the display of feeling. The work of Erving Goffman introduces us to the minor traffic lights of face-to-face interaction .... At the same time, it is hard to use Goffman's focus to explain why companies train flight attendants in smiling, or how emotional tone is supervised, or what profit is ultimately tied to emotional labor. It is hard to draw on this work alone and see how 'display work' fits into the larger scheme of things. The third discourse takes place in a quiet side street of American social science; it deals with the timeless issues of what an emotion is and how we can manage it .... To uncover the heart of emotional labor, to understand what it takes to do it and what it does to people, I have drawn on elements from all three discourses. (p. 10)

A major structuralist theme in Hochschild was how emotional labor serves to maintain collective structures (i.e., organizations) (Franks, 1985). An underlying theme in Hochschild's (1983a) study of airline flight attendants has been the structural conditions that generate emotions in service providers. Specifically, Hochschild (1983a) discovered that the structural conditions in the work of airline attendants often led them to an emotional dilemma: their job required them to project expected positive emotions (e.g., smiling) when in some cases anger and disgust were justifiably elicited by the disdainful and even harassing conduct of passengers. However, their position as service providers prohibited the expression of these emotions. In other words, natural emotion arose in service agents however social aspects did not allow the expression of these emotions. Hochschild (1983a) states that:

> [w]hen rules about how to feel and how to express feeling are set by management, when workers have weaker rights to courtesy than customers do, when deep and surface acting are forms of labor to be sold, and when private capacities for empathy and warmth are put to corporate uses, what happens to the way a person relates to her feelings or to her face? (p. 89)

According to some of these attendants, the suppression of their true feelings left them emotionally numb. Accordingly, Hochschild (1983a) states that: "[t]here is a cost to emotional work: it affects the degree to which we listen to feeling and sometimes our very capacity to feel" (p. 21). When expressed, Hochschild (1979) implies that true feelings are often reactions against inauthenticity but yet may appear as deviant to the others involved in a particular social situation.

Hochschild (1983a) went on to coin the term *emotional work* or *emotional labor* to describe various situations where feelings and not just their outward expressions were managed. Hochschild (1983a) states that: "[t]o manage feeling is to actively try to change a preexisting emotional state" (1983a, p. 219). With respect to Hochschild's (1983a) work on airline flight attendants, Kemper (1993) holds that: "Hochschild found that this occupation requires a good deal of 'emotional labor,' which is emotion work prescribed as a condition of holding down the job" (p. 48). Accordingly, Hochschild (1983a) provided many examples of frustrated reactions to demanding airline passengers who expected to be attended to by smiling staff. The notion of *emotional labor* suggests that the management of feeling on the

job requires effort. This view appears to be in sharp contrast with the view which equates emotion with passion and implies passivity in the sense that emotions represent things that happen to us or things over which we have no control (see Averill, 1980a, b, c). A similar passivity seems to be suggested in Goffman's theory where his description of the actor implies that he "has little inner voice, no active capacity for emotion management" (Hochschild, 1983a, p. 217).

At another level, Hochschild (1983a) has emphasized notions from cultural analysis. For instance, she found that in service occupations where the level of customer contact is high, employees are encouraged by the organization and its rules to project an air of hospitality and courtesy. The functioning of a variety of norms was explored and was found to reinforce the notion of *feeling rules* (e.g., one should feel happy at parties/sad at funerals) proposed earlier in Hochschild (1979). *Feeling rules* are generally described as scripts that are often unarticulated but yet known to many. Specifically, they are defined as the rules that "guide emotion work by establishing the sense of entitlement or obligation that govems emotional exchanges" (Hochschild, 1983a, p. 56). Compliance with feeling rules does not simply involve the expression of expected emotion and potential suppression of true feelings. Rather, they are endowed with the capacity to create or modify feeling within the service agent. Accordingly, Hochschild (1983a) holds that: "[i]t is a way of describing how ... we intervene in feelings in order to shape them" (p. 57). She goes on to say that:

> [i]f we conceive of feeling not as a periodic abdication to biology but as something we *do* by attending to inner sensation in a given way, by defining situations in a given way, by managing in given ways, then it becomes plainer just how plastic and susceptible to reshaping techniques a feeling can be. The very act of managing emotion can be seen as part of what emotion becomes. But this idea gets lost if we assume, as the organismic theorists do, that how we manage or express feeling is *extrinsic* to emotion. The organismic theorists want to explain how emotion is "motored by instinct," so they by-pass the question of how we come to assess, label, and manage emotion. (p. 27)

The notion of *feeling rules* stems directly from *cultural analysis* in sociology and also seems to somewhat parallel the rules that Ekman et al. (1972) have proposed as being present in every culture in order to define and regulate emotional expressions. However, the notion of *display rules* is confined to observable displays/expressions of emotion rather than felt

emotional states (Ekman & Friesen, 1969b).

Furthermore, Hochschild (1983a) proposes that in managing feeling or the display of an emotion suggested by a particular feeling rule, service providers will engage in either *deep* or *surface acting*. Compliance with feeling rules is partly reflected in Goffman's (1959, 1967) dramarturgical perspective. However, Hochschild (1983a) argues that Goffman's perspective only included indications of a type of superficial enactment or something akin to what she labeled *surface acting*. It therefore emerged as insufficient to account for her observations of emotion management by airline employees. Alternatively, Hochschild (1983a) proposes that:

> [w]e all do a certain amount of acting. But we may act in two ways. In the first way, we try to change how we outwardly appear. As it is for the people observed by Erving Goffman, the action is in the body language, the put-on sneer, the posed shrug, the controlled sigh. This is surface acting. The other way is deep acting. Here, display is a natural result of working on feeling. (p. 35)

Surface acting involves taking on and displaying only some of the elements of the prescribed emotion (Kemper, 1991; Thoits, 1990). For instance, to smile, if that is what is suggested by the feeling rule. Kemper (1993) states that: "[s]urface acting is accomplished when an individual puts on a suitable emotion - for example, smiling when he or she feels like crying, in order to swing the feeling away from sadness" (p. 48). Hochschild (1983a) specifies that:

> [w]e are capable of distinguishing what we feel, of pretending to feel what we do not - of doing surface acting .... In surface acting we deceive others about what we really feel, but we do not deceive ourselves. Diplomats and actors do this best, and very small children do this worst. (p. 33)

Alternatively, *deep acting* involves assuming a state that actually produces the desired emotion (Kemper, 1991). For example, if one is happy but the situation dictates that one should be sad; then, on may think of a reason for sadness which may lead one to feel truly sad. Kemper (1993) states that: "[d]eep acting is done when the individual attempts to change the feeling by changing the determinants of feeling - mainly the mental construction or appraisal that gave rise to the feeling, but also including such somatic elements as muscle tone and heart rate" (p. 48). Hochschild (1983a) states that:

> [i]n deep acting we make feigning easy by making it unnecessary. At Delta, the techniques of deep acting are joined to principles of social engineering. Can a flight

> attendant suppress her anger at a passenger who insults her? Delta Airlines can teach her how - if she is qualified for the job by a demonstrably friendly disposition to start with. She may have lost for awhile the sense of what she would have felt had she not been trying so hard to feel something else. By taking over the levers of feeling production, by pretending deeply, she alters herself. (p. 33)

Hochschild (1983a) holds that *deep acting* is somewhat analogous to Stanislavski's (1948/1965) Method for actors whereby actors present an emotion on stage which they have worked to generate in themselves prior to going on stage. She states that: "the actor does not try to seem happy or sad but rather expresses spontaneously, as the Russian director Constantin Stanislavski urged, a real feeling that has been self-induced" (p. 35). This theatrical form known as 'the Method' was taught at the famous Actor's Studio in New York (for a historical review of theatrical forms, see Roberts, 1997). Hochschild (1983a) adds that: "[t]here are two ways of doing deep acting. One is by directly exhorting feeling, the other by making indirect use of a trained imagination. Only the second method is true Method acting" (p. 38). According to Stanislavski (1965), this is enabled by access to *emotion memories* and involves a learned/trained capacity to remember emotively. More generally, Snyder (1979) has discussed impression management and formation. Snyder's (1979) observations reinforce those made by Hochschild (1983a) regarding acting:

> In short, social interaction requires the ability to manage or control our verbal and nonverbal self-presentation to foster desired images in the eyes of our beholders. These abilities, incidentally, are precisely those that have been attributed to the successful stage actor .... (p. 182)

Furthermore, Hochschild (1983a) holds that in an organizational/institutional environment, much freedom to act is taken away from the actor. She states that: "[t]he locus of acting, of emotion management, moves up to the level of the institution. Many people and objects, arranged according to institutional rule and custom, together accomplish the act " (p. 49). Moreover, it is added that: "[s]ome institutions have become very sophisticated in the techniques of deep acting; they suggest how to imagine and thus how to feel" (p. 49). Additionally, it is proposed that certain organizations such as Delta Airlines "model stage sets" (p. 51) with many detailed recommendations to employees which include not allowing a passenger with severe facial scars to board an aircraft. This apparently may remind the

other passengers of an airline crash. Hochschild (1983a) adds that: "[t]he bearer of a 'severe facial scar', then, is not deemed a good prop" (p. 52).

Hochschild (1983a) proposes that felt emotion results from the discrepancy between what is perceived and what is expected. Hochschild (1983a, b) also argues that as suggested in Freud, emotion involves a signal function and is described as a complex sense. However, to complete the emotion process, cognition intervenes to provide a label or name for the felt emotion and this name is supplied by culture. Underlying Hochschild's (1979, 1983b) work is an obvious *symbolic interactionist* perspective on emotion. The role of cognitive factors is clearly exemplified in her numerous examples of interactions between service providers and customers and appears to stem from the Schachter and Singer (1962) model of cognition and emotion.

In Hochschild's view, situations or *frames* initially elicit emotions in a seemingly natural way. However, social factors take over quickly. In the early stages of the process, the emotion and the feeling rule are weighed one against the other (e.g., I feel angry but I should be feeling happy and displaying happiness) in a more or less unconscious manner. However, any discrepancy seems to result in a conscious choice between maintaining one's current feeling state or engaging in emotional labor. At that point, a feeling rule that is not congruent with an actual feeling is in the position to eventually overwhelm the actual feeling by triggering emotional labor. Subsequently, *surface* or *deep acting* are engaged in so as to bring the felt emotion into alignment with the feeling rule (Kemper, 1991, 1993). Thus, in this perspective, emotion involves a comparison. It is evoked as one responds to a perceived contrast or discrepancy between what we feel and what we are supposed to feel. Hochschild (1983a) holds that this involves "a reality newly grasped *on the template of prior expectations*" (p. 165).

Hochschild's sociological perspective on emotion is in some ways analogous to that of contemporary psychological appraisal theories of emotion which stress the role of cognition in emotional experience. In Hochschild (1983a), the interpretation of events partly guides emotion and its expression. In fact, both the psychological and sociological perspectives suggest that *cognition* gives rise to feelings. From a sociological perspective,

Kemper (1991) refers to *perception* and to the notion of *agency*. The former is a mainly cognitive phenomenon to psychologists while the latter also appears as a dimension of appraisal in many *appraisal theories* of emotion reviewed in Scherer (1988b). However, sociologists pursue the study of what psychologists call "cognition" through *symbolic interaction theory*. These perspectives quite obviously differ somewhat with respect to their account, treatment, and labeling of these antecedent factors.

2.3 Interdisciplinarity or Compartmentalization in the Study of Emotion

Many sociologists have made use of psychological (intrapersonal) constructs in their conceptualizations, theories, and discourses on emotion (e.g., Hochschild, 1983a; Kemper, 1978). For instance, Hochschild (1983a) offers a sociological perspective on emotion. However, it remains interspersed with notions from psychology which clearly make emotion not only an interpersonal construction but also something that involves prior cognition, subjective feeling, and expressions. Hochschild (1983a) states that:

> a social theory of emotion must have both a social and a psychological side .... Emotion, I suggest, is a biologically given sense, and our most important one. Like other senses - hearing, touch, and smell - it is a means by which we know about our relation to the world, and it is therefore crucial for the survival of human beings in group life. Emotion is unique among the senses, however, because it is related not only to an orientation toward action but also to an orientation toward cognition. (p. 219)

She refers to the psychological (biological, physiological, and psychoanalytic) perspectives on emotion as *organismic* and to those which are rooted in sociology as *interactional*. The organismic aspects of her theory were drawn from the works of James, Freud, and Darwin whereas the specification of her interactional component was largely based on the works of Dewey, Gerth and Mills, and Goffman. Moreover, Hochschild (1983a) argues that each difference between the two components specifies "different links between social factors and emotion" (p. 207). More specifically, it is added that:

> [i]n the [purely] organismic model, social factors merely "trigger" biological reactions and help steer the expression of these reactions into customary channels. In the interactional model, social factors enter *into the very formulation of emotions* through codification, management, and expression. (p. 207)

She goes on to say that:

> [t]he organismic view reduces us to an elicitation-expression model. The interactional model presupposes biology but adds more points to social entry: social factors enter not simply before and after but interactively *during* the experience of emotion .... *By virtue of its greater complexity, the interactional model poses a choice between models of how social factors work.* (pp. 211-212)

Thoits (1985, 1990) has extended Hochschild's (1983a) perspective on emotion. She argued that emotion was an interrelated complex made up of situational cues, physiological changes, expressions, and an emotional label. In this perspective, a change in one component implies changes in the others and congruency with a feeling rule can be attained by either behavioral or cognitive manipulation of any of the four components of emotion. These views, with their emphasis on cognition and culture, are in line with those of constructivist psychologists such as Averill (1980a, b, c) who has adopted an interdisciplinarian view on the self and emotion and has presented emotion as a syndrome and thus as a multicomponent process.

Like Hochschild (1983a) and Thoits (1985, 1990), Kemper (1991) has argued for the necessity of a partnership among the disciplines which provide differing and often "disarticulated" perspectives on "a common topic" (p. 301). Nevertheless, some sociologists believe that emotion should be studied purely within the confines of sociology rather than from an interdisciplinary perspective. Sociologists who are in favor of a stand-alone sociology of emotions appear to present a reactionary stance on the dominant and largely intrapersonal approach to emotion exhibited by many somatic researchers in psychology such as Ekman and Izard. In this perspective, the social aspects of emotion have been traditionally ignored. For instance, Coulter (1989) argues that affect should be depsychologized:

> Sociologists interested in human emotions as social phenomena have begun to permit psychologistic specifications in their subject-matter to divert them from the development of a radically sociological level of analysis. One upshot of this has been the view that human emotions are fundamentally biological phenomena activated by the cognitive (over and above the experiential) orientation of individual agents to social relations and other social objects according to social norms. I do not think this theory has much coherence, let alone much truth .... (p. 49)

Similarly, Doyle McCarthy (1989) has suggested that whenever influences from other disciplines "have been instrumental in the development of sociology's own perspective,

sociology has suffered a theoretical defeat" (p. 53). She adds that:

> [b]y this I mean that as long as sociology takes its lead from psychology and physiology, it will cease to develop its own distinctive approach to the emotions: one that views as its object not aspects of the emotions, but the emotions in their entirety as social phenomena. The approach I am calling for takes seriously an autonomous sociological perspective on mind, self, and emotion. (This approach must precede an interdisciplinary synthesis if there is to be one) .... This means that sociological analysis interprets human psychology from its own frame of reference, not psychology's or that of any other discipline. (p. 53)

In our review of emotion in this and the previous chapter, it is evident that emotion emerges as a complex phenomenon that is multiply determined. Core psychological and sociological theories of emotion stress different aspects of this phenomenon. It is however obvious that an analysis of emotion in the service encounter requires a theoretical stance that involves a consideration of many of these aspects. If we factor in considerations of a consumer's emotional reactions to provider displays, which incidently are not addressed in Hochschild (1983a), the necessity of interdisciplinarity becomes even more evident than suggested in Hochschild (1983a). Accordingly, a stance is taken here which sees the adoption of purist accounts of emotion as suggested in the citations above as unnecessarily constraining and even debilitating in their explanatory power given that the purpose of this dissertation is to address emotion in the service encounter. Hence, an interdisciplinary theory of emotion is subsequently presented (see Chapter Six) to account for emotion in this context. The provider side of the proposed model is based on an augmented conceptualization of Hochschild's (1983a) work. The consumer side of the model puts a greater amount of emphasis on core psychological theories of emotion. The proposed perspective on emotion will emerge as one that is perhaps best qualified as *social psychological* (see Miller & Leary, 1992; Parkinson, 1995, 1996).

CHAPTER 3

EXPRESSIONS OF EMOTION

Because an important theme of this dissertation is emotional displays, we provide here a fairly detailed account of markers of emotion. This chapter represents a look at the expressive aspect of the behavioral component of emotion (see Öhman, 1986). First, we describe a programme of study whose purpose has been to establish that the recognition of facial expressions of basic emotions is universal. Its tenets are largely Darwinian. Despite fairly consistent findings, this research has been severely criticized. The main protagonists in the ongoing debate are the psychologists Paul Ekman, Carroll Izard, and James Russell. Later, we examine the relative role and efficacy of other markers of emotion in conveying emotional states.

3.1 Universality of Emotional Expression and Recognition

In an attempt to gather evidence for his theory of natural selection, Darwin (1872) sought to demonstrate that facial expressions of emotions were universal and therefore innate. He provided missionaries with a questionnaire and asked them to assess individuals in various native populations with respect to whether particular emotions were associated with particular facial displays (e.g., "Is astonishment expressed by the eyes and mouth being opened wide, and by the eyebrows being raised"). Thirty-six reports were returned to Darwin who (perhaps hastily) went on to conclude that emotional expression was universal. In subsequent studies, Darwin made use of photographic stills and judgment tasks such as those that appear throughout the work of Ekman and that of Izard. Darwin's photographic stimuli were inspired and sometimes supplied by the French physician Duchenne de Boulogne (1862) who was investigating the role of facial muscles in emotional expression with electrostimulation of these muscles (see Cornelius, 1996).

In accordance with Darwin's (1872) evolutionary perspective on emotion, Tomkins (1962, 1963) proposed a theory of emotion that holds to the universality of emotional expression as its major tenet. This theory is grounded in physiological mechanisms and links central nervous system activity to the behavior of facial muscles. Tomkins (1962) argued that facial expressions are prewired and initiated by a *primary affect programme*. The theory

further holds that facial expressions of emotions are caused by biological determinants and therefore discounts completely the role of social learning in the facial expression of emotion. Specifically, Tomkins suggested a hypothesis that is central to the physiological perspective on discrete emotions: "different densities of neural firing over time trigger innately determined facial responses that mediate the awareness of discrete emotions" (Roseman, 1984, p. 13). Tomkins' theory has promoted the view that there should exist species-constant facial expressions and therefore a cross-cultural constant in these expressions (Boucher & Carlson, 1980). A similar perspective on the universality of emotional expression appears in Lorenz (1965), Eibl-Eibesfeldt (1972), Ekman & Friesen (1969b), as well as in Izard (1971).

Early cross-cultural research in psychology has in more instances than not suggested universal consensus in judgments of emotional expression. In particular, Ekman and Izard have both leaned toward explanations which hold strongly to the universality of emotional expression and recognition and have repeatedly suggested that, for instance, a basic emotion felt in the United States and in some thirty other cultures[35] (which include aborigine or preliterate cultures) will be expressed by virtually the same facial gestures (see Biehl, Matsumoto, Ekman, Hearn, Heider, Kudoh, & Ton, 1997; Ekman, 1972, 1989, 1994; Ekman & Friesen, 1969b, 1971; Ekman, Friesen, & Ellsworth, 1972; Ekman & Oster, 1979; Ekman, Sorensen, & Friesen, 1969; Izard, 1971, 1977, 1994; Matsumoto, 1992a; Rosenberg & Ekman, 1995). Accordingly, Ekman (1980) stated that "when someone feels an emotion ..., his or her face appears the same no matter who that person is or where he or she comes from" (p. 7). Ekman (1971, 1977) referred to the physiological factors which trigger the expression of basic emotions as the *facial affect program* thus suggesting its biological and physiological bases. Similarly, Izard (1972) suggested that an emotion "is a complex process that has neurophysiological, motor-expressive, and phenomenological aspects" (p. 51). He

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35 Rosenberg and Ekman (1995) suggest that this may be one of the "more stable and reproducible phenomena" in the annals of modern psychology. They argue that it has served as a foundation for biological and evolutionary theories of emotion (e.g., Ekman, 1977) "as well as a point of reference for cognitive theories that propose universality in the antecedents of emotion (e.g., Lazarus, 1991[a])" (p. 112).

adds that each basic emotion has its own innate program, whose neurochemical activity "produces patterned neuromuscular responses of the face and body and the feedback from these responses is transformed into conscious form" (p. 52).

In one study, Ekman (1973) found that American observers could accurately identify emotions from the facial expressions of individuals from New Guinea and Papua and that observers in Borneo and New Guinea could accurately identify the expressions of Americans. In another study, Izard (1971) reported that emotions were accurately recognized by observers from eleven different cultures. In still another study, Ekman, Friesen, and Ellsworth (1972) found that the posed expression of the basic emotion *surprise* was the one among six which generated the highest levels of agreement among American, Argentinian, Brazilian, Chilean, and Japanese subjects. On the other hand, that of *fear* generated the lowest levels of agreement.

The methodologies used in most of these studies are described in Ekman (1984) with specific reference to his and Friesen's work and to that of Izard:

> Our best known experiments involved showing photographs of facial expressions to observers in different cultures and asking them to check from a list the emotion they saw. Observers in five cultures gave the same interpretation of each face .... Quite independently of us, Carroll Izard (1971) did exactly the same experiment, with different photographs of facial expressions and a somewhat different list of emotion terms, and obtained very similar results.

Scherer (1992) also provides a description of these studies:

> Prototypical facial expressions of the dozen or so "basic" or "fundamental" emotions, as they are studied in facial expression recognition paradigms, generally consist of "frozen" images - static photographs selected to represent the essence of the presumed prototypical expression patterns as unequivocally as possible. While candid shots of real-life emotion are sometimes used, in the overwhelming majority of the studies in this area these prototypical expressions were posed by models, sometimes including actors. The induction instructions varied from asking the models to portray a particular emotion to detailed specifications for the innervation of particular muscle groups. The photograph is taken at the apex of the expression produced by the model, who may be asked to hold this pattern for a period of time. Often, the instructions to the models and the selection of photographs to be used were guided by the researcher's theoretical considerations concerning innate, universal patterns of expressions for specific emotions (eg Izard, 1971, pp. 235-247; Ekman & Friesen, 1975, pp. 28-29). Generally, the criterion for using a particular photograph

in judgment studies is a high level of decoding agreement between judges. (pp. 144-145)

Research on universals in the recognition of expressed emotion has incited some emotion theorists to hold to the notion that the emotions with which these expressions are associated are basic or fundamental[36]. Accordingly, Izard (1977, 1992) suggested that ten "distinct" emotions may be viewed as fundamental, basic, or universal: *interest-excitement, joy, surprise, distress-anguish, anger, disgust, contempt, fear, shame, and guilt* because their facial expressions were universally recognized as expressions of these ten emotions. With respect to each basic or fundamental emotion, Izard (1977) states that:

> [e]ach has an inherently adaptive function. They are termed fundamental because each of them has (a) a specific innately determined neural substrate, (b) a characteristic facial expression or neuro-muscular-expressive pattern, and (c) a distinct subjective or phenomenological quality. (p. 83)

Similarly, Ekman and his colleagues have suggested that at least six emotions are universally recognized (*happiness, sadness, anger, fear, disgust,* and *surprise*) and some evidence for *contempt* as a seventh universal emotion (e.g., Ekman & Friesen, 1986). In a review of studies on emotion recognition, Rosenberg and Ekman (1995) propose that: "(over) the past 25 years numerous studies of literate and preliterate cultures have shown that anger, disgust, fear, happiness, sadness, and surprise are universally recognized" (p. 111). Despite his vehement critique of the research on emotional recognition, Russell (1994) has acknowledged that many reviews of this work suggest that the face reveals emotion and these

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[36] In defiance of Ekman's and Izard's studies and conclusions, Ortony and Turner (1990) argued that the universal recognition of a small set of emotions does not imply that the emotions themselves are universal. Moreover, they suggested that what is a basic emotion for some may not be to others. They further held that this tends to depend on what aspect of emotion is emphasized in a definition of *basic emotion*. Furthermore, they proposed that there are no basic emotions and that what are called *basic emotions* are rather prewired appraisal-resultant pairings. In other words, each appraisal may elicit a specific behavioral, physiological, and mental resultant. The pairings are independent of each other but may occur in groups. Each group may be referred to or thought of as an emotion because the conditions that determine or elicit them often occur concurrently in the environment. In other words, what Ekman and Izard refer to as *basic emotions* are presented in Ortony and Turner (1990) as constructs which can alternatively be broken down into components which resemble or correspond to cognitive appraisals. Ortony and Turner (1990) also hold that a rejection of the notion that some emotions are basic does not imply that basic elements do not constitute emotions. It does however imply that the basic elements are not in themselves emotions. A reply to Ortony and Turner (1990) appears in Ekman (1992c).

emotions are universally recognized (for a reply, see Ekman, 1994). Elsewhere, Russell (1995) implies that results are far from unanimous. He states that: "[s]o we agree that the amount of universality is greater than 0% and less than 100%" (p. 382). A similar contention appears in Scherer (1992).

Generally, the studies which suggest universality further reinforce the notion that basic or fundamental emotional states are evolved phenomena (Ekman, 1984) that are expressed through pre-wired sub-cortical channels and do not involve cognition (e.g., Frank et al., 1993; Ekman, 1992b; Izard, 1977). Nevertheless, some research has shown differences across cultures in judgment of facial expression with respect to recognition rates (e.g., Matsumoto, 1989, 1992b), the intensity of facial expressions (e.g., Ekman et al., 1987), and *exact*[37] levels of agreement (Biehl et al., 1997). Markham and Wang (1996) state that:

> [t]here is strong evidence for the universality of recognition of at least six emotions ... and for the fact that certain situations elicit the emotions of happiness, anger, fear, sadness, disgust, and surprise in adults from different cultures .... There is some evidence, however, that cultures differ in their relative ability to recognize particular emotions ... and the situations perceived as likely to give rise to these emotions may also differ somewhat between cultures .... The latter may result from differences in the way an event is appraised or from differences in familiarity with particular events. Differences between languages may also result in variation in the ways the domain of emotion is divided .... Further, if the display or labeling of emotions is generally discouraged in a society, then people from these societies may perform more poorly in emotion recognition tests than people from expressive societies, not just on specific emotions, but over all emotions .... (pp. 616-617)

Similarly, Kitayama and Markus (1994) state that:

> [n]o doubt, emotions are comprised of a myriad of physiological, neurological, and psychological components. Many of these component processes may be demonstrably hardwired. Nevertheless, by themselves, these processes are not emotions. Rather, the components may be combined and accorded their divergent functions and forms through social and cultural processes by which individuals try

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[37] Although Biehl et al. (1997) reported that overall, their findings suggested agreement with the universalist stance, they did find subtler differences between American, Vietnamese, and Japanese with respect to "the exact level of agreement." For instance, they state that: "[t]he Japanese, for example, seemed to fare worse than the other countries in agreeing on expressions of anger, fear, and sadness. Americans had less agreement than other countries on contempt, while Vietnamese had less agreement than other countries on disgust" (p. 16). These differences were attributed to sociopsychological or cultural factors or more precisely, differing decoding propensities.

> to accomplish, collectively and personally, a form of adaptation and adjustment to their own immediate sociocultural, semiotic environment ... emotion and culture are mutually and reciprocally related. (pp. 1-2)

This view is partly in accord with that of most psychologists who construe emotion as a universal set of pre-wired processes. However, it is also partly in accord with social constructivists, other cross-cultural psychologists, sociologists, and anthropologists (e.g., Boucher, 1979; Gergen, 1985; Gudykunst & Ting-Toomey, 1988; Heelas, 1984; Kemper, 1991; Lutz, 1988; Mead, 1975; Rosaldo, 1984) who in varying degrees have suggested that emotional experience and expression are not universal and that culture and the socius play a central role in shaping emotional experience and expression.

Spurred by controversy, divergent findings between disciplines (especially in anthropology) with respect to differences and similarities in various components of emotions across cultures (see Markus & Kitayama, 1991; Mesquita & Fridja, 1992), and methodological inadequacies in prior studies indicating universality (see Russell, 1994; also see replies by Ekman, 1994 and by Izard, 1994), some researchers have adhered to or have shifted toward a differentialist (as opposed to a universalist) perspective on emotion (see Scherer & Wallbott, 1994). This perspective clearly discounts similarities in emotion phenomena across cultures. The most extreme views in the differentialist perspective completely downplay the role of biological factors in facial expressions of emotion. Such views are typical of anthropologists such as Mead (1975) who have argued that these expressions are controlled by culture and hence are variable from one cultural setting to another. Accordingly, Rosaldo (1984) has stressed that "feelings are not substances to be discovered in our blood but social practices organized by stories that we both enact and tell" (p. 143). Similarly, Lutz (1988) has suggested that emotions "can be viewed as cultural and interpersonal products of naming, justifying, and persuading by people in relationship to each other" (p. 5). It is added that emotional meaning is "then a social rather than an individual achievement - an emergent product of social life" (p. 5).

One major problem with anthropological studies on emotions is that they have tended to be culture specific (Gudykunst & Ting-Toomey, 1988). Accordingly, Matsumoto (1989) has suggested that much cross-cultural research has been impeded by an operationalization

of culture on a country-by-country basis. Such an approach does not lend itself well to cross-cultural comparisons or the interpretation of differences across cultures. Cross-cultural psychologists such as Markus and Kitayama as well as Matsumoto have therefore adopted a interdisciplinary stance on emotion which draws on perspectives rooted in psychology, anthropology, and sociology; and have stressed the importance of cross-cultural comparisons based on Hofstede's (1980) dimensions of cultural variability and/or proper methodologies designed to ensure comparability and the identification of "true" cross-cultural differences rather than variations due to artefactual factors (e.g., Biehl et al., 1997; Matsumoto, 1992b; Matsumoto & Ekman, 1988, 1989; Wagner, 1993). For instance, Biehl et al. (1997) state that:

> [e]xamining cultural differences requires a different methodology than studying similarities [in emotion]. Matsumoto (1992[b]) outlined such requirements: (1) cultures must view the same expressions; (2) the facial expressions must meet the criteria for validly and reliably portraying the universal emotions; (3) each poser must appear only once; (4) expressions must include posers of more than one race. (p. 4)

The notion that some emotional expressions can be produced voluntarily and that these expressions are acquired by social learning and then guided by culturally-bound *display rules* has been supported in many studies and even suggested by the universalists Ekman and Izard (e.g., Boucher, 1977; DePaulo & Friedman, 1998; Ekman & Friesen, 1969b; Ekman, 1972; Gudykunst & Ting-Toomey, 1988; Matsumoto, 1989, 1990, 1991; Triandis, 1994). In fact, the notion of *display rules*[38] was introduced by Ekman and Friesen (1969b) to account for divergent findings presented by researchers who argued in favor of cultural determinants in emotional expression and also for some discrepant findings uncovered by universalists.

Specifically, Ekman and Friesen (1969b) presented a neuro-cultural theory of emotional expression which attempted to explain how emotional expressions can be universal and yet involve culture-specific determinants. Accordingly, *display rules* were presented as culturally learned ways of expressing emotion. Ekman (1972) stressed the importance of cultural factors in modifying (not in determining) facial expressions (for a

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[38] The notion of *display rules* is confined to overt expressions of emotion. On the other hand, Hochschild (1979, 1983a) proposed the notion of *feeling rules* which guide the inner experience of emotion in particular social situations.

similar argument which does not dismiss universality, see also Biehl et al., 1997). Ekman (1972) pointed out that "learned habits about controlling the appearance of the face (display rules) can and often do intervene between the triggering of the facial muscles by the facial affect program and a visible change in facial appearance" (p. 216). In this perspective, display rules are presented as regulating and overlaying natural displays of emotion. Although they may be suppressed, natural displays of emotion are viewed as energized and pushed forth or squeezed out from one's insides (Zajonc, 1998).

In a review of his work, Ekman (1984) referred to one particular experiment which was run concurrently in the U. S. and Japan in which isolated subjects were videotaped watching a film:

> We designed an experiment to show that display rules are responsible for the frequent observation of cultural differences in facial expression. Within a single experiment we hoped to show universality both in facial expression and cultural differences due to display rules .... When we measured each and every movement of the face we found nearly identical facial muscle movement at nearly identical points in the film, regardless of culture. The correlations between the expressions shown by Americans and Japanese were above .90. Culture made no difference. In the second part of the experiment, we brought a scientist into the room with the subject .... Our hypothesis was that display rules would operate in Japan, causing the subject to mask negative affect with a smile. In the United States, the presence of an authority [figure] might lead college students, (during the rebellious 1960s), to amplify negative affect, certainly not conceal it. Measurement of the facial movements showed no overlap in the facial behavior of the Japanese and Americans. In this single experiment we had shown how facial expressions are both universal and culturally different. In private, when no display rules to mask expression were operative, we saw the biologically based, evolved, universal facial expressions of emotion. In a social situation, we had shown how different rules about the management of expression led to culturally different facial expressions. (pp. 320-321)

From a communication theory perspective, Buck (1984, 1988a) argued that nonverbal communication involves two simultaneous streams that are separate but interactive: (a) the spontaneous and (b) the symbolic (also see Buck, 1982). The spontaneous stream is biologically-based and has been observed across species. Accordingly, it is evolved and thus law-based, suggests preparedness for predetermined action, is not intentional, is geared for survival purposes, and implies that its meaning (i.e., ability to decode) is inherited and it can therefore be interpreted easily and directly by the receiver (see Darwin, 1872). On the other

hand, symbolic communication is: (1) culturally patterned and therefore learned, (2) "based upon symbols that have an arbitrary relationship with their referent" (Buck, 1988a, p. 344) and thus variable across settings, (3) potentially intentional, (4) propositional, and (5) rule-based. Hence, symbolic communication underlies Ekman and Friesen's (1969) notion of learned *display rules* (see Sypher, Davenport-Sypher, & Haas, 1988). Buck (1988a) adds that:

> [i]t is critical to emphasize that spontaneous and symbolic communication are different kinds of systems that interact with each other. They do not define different ends of a continuum. It is possible to have spontaneous communication without symbolic communication, as in an ant or termite colony. It is not, however, possible to have symbolic communication without spontaneous communication. Symbolic communication may dominate spontaneous communication, as in a dull lecture, but there is always an element of spontaneous communication present, mediated by the nuances of gesture, posture, facial expression, and tone of voice. (p. 344)

Accordingly, the learned symbolic sort of communication that is guided by sociocultural rules rather than biological laws may outweigh or override signals of the spontaneous variety. Culture can therefore provide members with a repertoire of affective responses to stimuli (Jenkins & Kamo, 1992) that is not limited to the inherited responses we may share with other species and which are therefore biologically prewired. Some findings have suggested that display rules (Ekman & Friesen, 1969b; Ekman, 1972, 1992a) tend to depend on how a situation is perceived and that these perceptions or appraisals of situations are influenced by culture (Ellsworth, 1994; Mauro, Sato, & Tucker, 1992). For instance, Ellsworth (1994) states that: "[c]ultural differences in emotion are a result of cultural differences in the perception and interpretation of events" (p. 29).

Biehl et al. (1997) have suggested that sociocultural factors may be involved not only in expressing emotion (i.e., display rules) but also in the judgment[39] of emotion in that their findings "highlight the importance of *learned rules of emotion judgments* [italics added] that differ from culture to culture" (p. 16). With respect to the role of decoding differences between cultures, they add that:

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[39] This notion is akin to that of culture-specific rules of decoding discussed in Buck (1984).

> [t]hese tendencies may exist not necessarily in the general emotion category used to classify an expression, but rather in the exact semantics and general affective meanings associated with that category label. Thus, while cultures will all tend to view each emotion as that emotion intended, differences in agreement levels among cultures will occur because of differences in the semantic or affective meanings and associations of the emotion terms used as response alternatives. These latter differences comprise what may be considered culture-specific rules of decoding emotions, and would explain why agreement levels are often substantially higher than chance yet variable across countries at those high levels, as obtained in this and other studies. (p. 16)

The notion of scripted[40] emotional behavior plays a fundamental role in explaining various forms of dyadic interaction (see Fischer, 1991) which include the service encounter (see Ashforth & Humphrey, 1993). The dramaturgical metaphor on behavior that is apparent in sociology views scripts as highly structured and largely based on social factors (see Snow, Zurcher, & Peters, 1981; Zurcher, 1982, 1985). On the other hand, the notion of scripted emotional behavior in the psychological perspective has tended to stress the importance of non-social constituents. For instance, Russell (1997) holds that emotion categories such as anger or happiness involve temporally-ordered sequences of occurrences such as thoughts, physiological changes, expressive reactions, etc. He calls these sequences *scripts* (see also Russell & Fehr, 1994). Kitayama and Markus (1994) take a middle-ground position. They hold that the notion of *emotion script* stems partly from a functionalist perspective on emotion "which assumes that emotions are best seen as an assortment of socially shared scripts made up of physiological, subjective, and behavioral processes" (p. 10). They add that:

> [t]hese emotion scripts develop as individuals actively, personally, and collectively adapt and adjust to their immediate sociocultural, semiotic environment. Emotion scripts are obviously afforded by a number of biologically hardwired component processes, but they also reflect the cultural environment to which they are adjusted and tuned. We may find similar emotion scripts across seemingly divergent cultures to the extent that these cultures share common elements, such as ecological

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40 At the intrapersonal level, Russell (1989, 1997) has also argued that emotion categories or words (e.g., anger or happiness) are best understood in terms of scripts which provide prototypical sequences for an emotion and which "unfold in a causally connected temporal order" (1997, p. 214). A typical sequence may involve antecedent causes, physiological changes, subjective feeling states, expressions, actions, etc. (see also Russell & Fehr, 1994).

> conditions and prototypic models of social relationships (Fiske, 1991). At the same time, to the extent that the cultures vary in some other important regards, emotion scripts may also take correspondingly divergent forms. Once existent, emotion scripts will organize and modulate the working of the biological component processes themselves. (p. 5)

Also from a functionalist perspective, Fridja and Mesquita (1994) have proposed that emotions are "not only intraindividual states but also forms of subject-environment interaction" (p. 73). Emotion experience emerges here as something obviously rooted in inherited biological factors but also shaped by cultural factors. Quite evidently, recent findings have impelled a paradigm shift in the field of psychology from one which stresses the universality of emotion recognition and expression to one that acknowledges, incorporates, and/or addresses differentialist research findings (e.g., Biehl et al., 1997; Ekman, 1994; Izard, 1994; Russell, 1994). Earlier, Barrett and Campos (1987) had suggested that the core assumptions of the biological approach to emotion were being challenged. A middle-ground perspective on emotion which does not exclude the effects of culture on emotion is for instance apparent in the work of Ellsworth (1994) where it is suggested that: "[a] genuine appreciation of the intricate relations between emotion and culture must involve consideration both of similarities across cultures and of cultural differences" (p. 23). Similarly, Triandis (1994) has suggested that both universality and cross-cultural variability occur in the expression of emotion. He states that:

> [t]hus, to understand how emotions are expressed, one needs to know how the elements of culture are assembled in a particular time period. Both universal and culture specific links are likely between cultures and the probabilities of various emotions .... (p. 286)

Moreover, Kitayama and Markus (1994) propose that emotion may be more usefully conceptualized along what has been proposed in Ortony and Turner (1990): a fuzzy set of component processes (e.g., facial expressions, patterns of cognitive appraisals, and action tendencies). In this set, not one component is either sufficient or necessary to define emotion. A similar position is presented in Russell (1997) who argues that a fuzzy logic be applied to emotion because emotions are systematically interrelated (see also Russell & Bullock, 1986a). Kitayama and Markus (1994) add that: "[y]et as a whole, they form a cluster that

retains certain characteristic functions vis-à-vis a pertinent social (or nonsocial) situation" (p. 5). They further add that:

> [i]n short, according to the current cultural perspective on emotion, culture can penetrate deeply into virtually every component process of emotion, not only the cognitive or linguistic elements that are directly provided by the culturally shared pool of knowledge, but also physiological and neurochemical elements, which need to be adjusted or tuned for the individual to accomplish a reasonable degree of adaptation and adjustment to the pertinent cultural environment .... All in all, then, the current focus on cross-cultural variation in emotional processes and emotional experience may reveal a far greater impact of sociocultural processes on emotion than imagined within the traditional biological approach. (pp. 6-7)

Finally, in an important study, Scherer and Wallbott (1994) tackled the controversy of universality vs. cultural variation (i.e., the differentialist perspective) in emotion head on. They gathered self-report data in 35 countries on three components of emotional experience (subjective feeling, physiological symptoms, and expressive behavior) with respect to seven emotions (joy, fear, anger, sadness, disgust, shame, and guilt). Their results indicated that both perspectives are somewhat valid:

> As one might have expected from earlier examples of similarly futile controversies (e.g., genes vs. environment and personality vs. situation) we find that both emotion specificity and culture (in the form of country differences) explain sizable amounts of variance in the emotion reports of our respondents. As was also expected, these factors interact .... The results for the three response domains investigated - feeling, physiological symptoms, and expression - show consistently strong effects for universal, emotion-specific effects and small to medium effects for country and the Emotion X Country interaction. The data reported here do not support an extreme position of cultural relativism with respect to emotional experience. (p. 324)

3.1.1 Issues in Traditional Studies of Emotion Recognition

The methodologies which typically underlie studies of emotion recognition such as those of Ekman and Izard have been severely criticized. For instance, Cornelius (1996) states that:

> [e]ven though the "Dark Ages" of the Darwinian tradition are certainly over, and most students of emotion concede that there do seem to be a small number of facial expressions that are universally produced and recognized by humans the world over, Darwinian research, especially about the universality of facial expressions is not without its critics. (p. 44)

In particular, Russell (1991, 1994) has directed many criticisms at the various studies done by Ekman and Izard. For instance, Russell (1991) argued that the accuracy of the interpretation of emotional stimuli presented to subjects in these studies can easily be put in question and that it depended more on the context of the expressions than on the actual expressions (see also Russell & Fehr, 1987). Other methodological shortcomings identified by Russell were related to: (a) the previewing of slides, (b) the presentation order of slides, (c) the preselection of slides, (d) a reliance on posed expression, and (e) the use of forced-choice response formats. Accordingly, Russell (1994) found many faults with the manner in which facial stimuli were selected and presented to raters in Ekman's and Izard's studies. Perhaps the most damaging criticism rests on extensive use of photographic stills (e.g., Ekman & Friesen, 1975, 1976; Izard, 1971). Carroll and Russell (1997) have argued that this reliance on artificial means implies a lack of ecological validity in Ekman's and Izard's experiments. Accordingly, little credence has been given to the generalizability of these findings to everyday life (Carroll & Russell, 1997; Russell, 1994). Similarly, Scherer (1992) argued that expressions of emotion are "dynamic events" and photographic stills "may misrepresent the underlying emotion" (p. 145) (for a similar argument, see Ekman, Friesen, & Ellsworth, 1982). A related threat to ecological validity lies in the use of actors or models in film clips and stills portraying emotional expressions. Accordingly, Scherer (1992) states that:

> one can argue that model- or actor-generated facial expression, static or dynamic, are hardly representative of natural expressions. Actors may have learned to render the emotions in a highly stylized, prototypical fashion to allow easier communication of feeling on the stage ... we should refrain from treating actor portrayals of emotions as typical or prototypical of natural expressions until the evidence is in. (p. 146)

Furthermore, Wehrle, Kaiser, Schmidt, and Scherer (2000) suggest that stills "may lack essential cues used for the differentiation of emotions" (p. 106). They add that:

> [f]or example, one of the consistent findings in this area is that fear expressions are often confused with surprise. One explanation for this might be that the main difference between these two emotions resides in the respective temporal structure, not observable in still photographs, of the innervations in the facial musculature. (p. 106)

Jones, Collins, and Hong (1991) have identified two major perspectives on the significance of distinct facial configurations: (a) emotional experience automatically triggers or activates prewired or preconfigured patterns of facial movements which result in an expression unless they are modified by top-down[41] processes or actively inhibited and (b) facial expressive movements represent evolved social displays which are not designed to signal or encode information about emotional states but rather information about behavioral tendencies within a social context. Ekman and Izard have clearly exemplified the first perspective. Accordingly, they have held that nongestural facial displays are expressions of emotion and proposed a correspondence between each felt basic emotion and particular facial expressions. (e.g., Ekman, 1977, Izard, 1977). On the other hand, Fridlund (1990, 1991b, 1992a, b, 1994) has adopted the second perspective and has emerged as a vehement critic of Ekman's and Izard's studies. Generally, Fridlund's criticisms have revolved around the lack of social and behavioral ecology in Ekman's and Izard's studies. In other words, Fridlund (1991b, 1994) argued that the influence of the social context has largely been ignored in studies of facial displays of emotion. Accordingly, Fridlund has generally questioned the nature of the information that was supposedly presented to subjects in these experiments and has argued that Ekman and Izard have reduced the role of facial expressions to one that is simply to express emotion (Fridlund, 1992a). Furthermore, Fridlund (1992a, 1994) held that Ekman's results only demonstrate that individuals in different cultures are able to match emotion labels to a limited number of facial expressions and that this is not accomplished with 100% accuracy (see also Alvarado, 1996; Russell, 1994; Ortony & Turner, 1990). In other words, Fridlund (1994) suggested that a loose coupling was evident between emotion terms (subjective feeling states) and facial expressions and that this suggested that facial expressions did not necessarily convey internal states of emotion.

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[41] In general, top-down processes are influenced by pre-existing knowledge structures (e.g., scripts, frames, schemata, expectancies, people's theories and models, etc.). A perspective on emotion which incorporates top-down features is the cognitive appraisal perspective (see Wilson & Klaaren, 1992). On the other hand, bottom-up processes do not involve direct cognitive influences. Darwinian theories which hold that neural firing programs underlie emotions suggest that emotion is a bottom-up process (e.g., Izard, 1972, 1977; Tomkins, 1962).

Alternatively, Fridlund (1990, 1991b, 1992a, 1994) has suggested that facial displays of emotion are the tools of specific social motives and that they are designed to signal social intentions or behavioral tendencies rather than felt emotional experience. For instance, Fridlund (1991b) found that facial displays tended to vary across different social contexts and appeared unrelated to the subjective experience of emotion. In another study, Fridlund (1992a) argued that facial expressions of emotion serve a social role and are thus "social tools" (p. 96). He added that all facial displays "signal our social inclinations when we are emotional, and not our emotions themselves" (p. 104). Fridlund (1992b) provides a summary of his position:

> The behavior-ecology view has now been extended to human facial expressions (Fridlund, 1991*a*). In this article, I demonstrated that the standard lines of evidence for two-factor emotions views, ie cross-cultural studies, demonstrations of display rules, facial "leakage," etc, do not survive reanalysis. I also reviewed evidence from human laboratory and field studies showing that facial displays depend on the momentary social contact between displayer and recipient; and those made in solitude signify display to implicit or imaginary others (eg Fridlund, 1991; Fridlund et al., 1990). In neither case do the displays necessarily relate to emotion, but instead reflect the social context of display and the social intent of the displayer. The behavioral-ecology view of nonhuman displays, as extended to humans, leads to a strategic, communicative analysis that restores the phylogenetic continuity of displays sought by Darwin and the derivative two-factor theories, and accords with how people use their faces in everyday social commerce (Fridlund, 1991*a*, 1992[a]). (p. 130)

Mandler (1992) provides further clarifications on Fridlund's position:

> Fridlund notes, *inter alia*, that facial displays are consonant with current evolutionary views of signaling, and that even displays previously considered involuntary are, in fact, social and communicative. Fridlund has shown how a social interpretation of these displays best fits with existing knowledge about the function of displays in emotion and their presumed universality. He has elaborated a scenario of the evolutionary origin and utility of facial displays in which these displays function to communicate intentions and situational evaluations in the absence of verbal devices. In the construction of emotions, facial displays are important contributors to the evaluative cognitions ... and appraisals ... of the current scene, similar to verbal, imaginal or unconscious evaluative representations. Facial displays occur in many situations where emotions are inferred or asserted. However, they also occur in many situations that one would not call emotional at all; facial and body language provides important social communications. (p. 102)

That the expression of emotion serves social motives has been demonstrated in many other studies (e.g., Fernandez-Dols & Ruiz-Belda, 1995; Fridlund et al., 1990; Gilbert, Fridlund, & Sabini, 1987; Jakobs, Fischer, & Manstead, 1997; Jones, Collins, & Hong, 1991; Kraut & Johnson, 1979). For instance, Kraut and Johnson (1979) observed smiling in successful bowlers. They found that the bowlers did not tend to smile just as they scored a strike or spare but rather when they turned to face their companions. In other words, they smiled because of a social motive rather than when their state of happiness was assumed to be at its highest or at its peak. In another study, Fernandez-Dols and Ruiz-Belda (1995) also relied on naturalistic observation and indicated that athletes who were almost certainly experiencing intense happiness just after a good performance smiled only under particular conditions. It was concluded that in everyday life, smiles don't always occur concurrently with felt happiness and vice-versa.

In a like vein, Dimberg (1982) investigated facial electromyography reactions when subjects were exposed to pictures of angry and happy facial expressions. EMG results indicated higher activity of the brow muscle region along with lower activity over the cheek muscle region when subjects saw angry, in contrast to smiling, faces. These results essentially replicated those reported in Cacioppo et al. (1986). Two follow-up studies were done in an attempt to understand the significance of these results. Dimberg (1986) as well as Dimberg and Thell (1988) exposed subjects to photographic stills of fear-relevant (e.g., snakes) and fear irrelevant (e.g., flowers) stimuli. The same pattern of EMG results appeared as in Dimberg (1982) when subjects were exposed to fear-relevant rather than fear-irrelevant stimuli. Dimberg and Thell (1988) interpreted the results which had accumulated over the three studies as suggesting that "stimuli which are experienced as unpleasant and pleasant, elicit facial-EMG reactions that are interpretable as a negative and a positive emotional response, respectively" (p. 218). However, Cacioppo, Bush, and Tassinary (1992) have argued that Dimberg's (1982) results may be reinterpreted along the lines of reasoning suggested in Fridlund (1990) who proposed that social motives determine facial reactions. Accordingly, Cacioppo et al. (1992) suggest that: "[t]hese data, however, may also reflect differences in the social motives that are usually evoked when confronting a smiling or

scowling conspecific" (p. 516). They add that:

> [i]f viewing facial displays of emotion, in contrast to viewing nature scenes, is particularly likely to activate social motives (or an implicit audience) in solitary subjects [see Fridlund, 1991b], then the incipient facial actions reported by Dimberg (1982) may be due to the activation of distinctive social motives rather than positive and negative affective reactions per se. (p. 517)

Wagner, MacDonald, and Manstead (1986) have also expressed concerns regarding the generalizability of Ekman's results:

> Since Ekman, Friesen, and Ellsworth's (1972) influential review and reanalysis of experiments on facial expression conducted between 1914 and 1970, there has been a widespread assumption that facial expressions can be used by individuals to infer the emotional experiences of others with a reasonable degree of accuracy. Such an assumption, however, is a generalization that requires closer examination: Under what conditions can facial expressions communicate emotional experiences? We are concerned with the capacity of *dynamic* and *spontaneous* facial expressions to communicate the *quality* of emotional experience. There are surprisingly few studies that bear on this issue; certainly, none of the studies reviewed by Ekman et al. (1972) allows us to draw any conclusion about the communication of specific emotional quality by way of dynamic, spontaneous emotional expressions. (p. 737)

Wagner et al. (1986) generated dynamic and spontaneous facial expressions by covertly videotaping individuals as they watched emotionally loaded slides. After each slide, the sender was asked to label the emotion that he or she displayed during exposure to the slide. Observers were asked to name the emotion that the sender displayed in the videotaped episode. Wagner et al. (1986) found that only happy, angry, and disgusted expressions were recognized at above chance rates. On the other hand, expressions of surprise were recognized at rates significantly worse than chance. Moreover, observers showed a tendency to confuse happiness and surprise. Wagner et al. (1986) concluded that "receivers' judgments were in general rather inaccurate" (p. 740).

Ekman (1973) asserted that "facial expression is associated with the same emotion for all people .... Regardless of the language, of whether the culture is Western or Eastern, industrialized or proliferate, these facial expressions are labeled with the same emotion terms: happiness, sadness, anger, fear, disgust, and surprise" (pp. 219-220). Anthropologists have argued that the emotion labels provided to subjects in Ekman's and Izard's experiments may not even be accurate representations of emotional experience across cultures and that

they may not function as emotion labels in some cultures (Lutz & White, 1986). Accordingly, Mesquita and Fridja (1992) have suggested that efforts at having people match stimuli depicting expressed emotion to a label across cultures must be preceded by an examination of what the emotion labels (i.e., affective lexicon) mean in particular cultures (see also Ortony & Clore, 1989).

Another severe blow to Ekman's assertions for the universality of his proposed set of six basic emotions was delivered by Wierzbicka (1990, 1992, 1994, 1995) who argued that some labels provided by Ekman to his subjects were far from universal but rather constituted cultural artefacts of the English culture. Various counterexamples to Ekman's presumed universality of emotion terms were presented. For instance, she offered evidence that the word 'sad' has no clear analog in the Australian Aboriginal culture (1994). Other criticisms have revolved around the English translations of emotion labels to a variety of foreign languages (Wierzbicka, 1986). Given these criticisms, it appears that the standard of accuracy in Ekman-type studies of emotion recognition is what typical American college students are able to do (Cornelius, 1996).

Finally, forced-choice response formats have often been used in important studies of emotional recognition. Specifically, raters have usually been provided with a list such as *happiness, sadness, fear, surprise, anger, contempt,* and *disgust* (e.g., Ekman, 1972; Ekman & Friesen, 1971, 1975; Izard, 1971; Kirouac & Doré, 1985) and then asked to choose the one emotion which they recognized in a photograph. Russell (1993) has proposed that such response formats tend to be limiting especially if they do not contain the proper label for the emotion that a rater perceives. Moreover, Russell (1997) argues that emotion categories suggested by the labels we find for emotion in the English language (e.g., anger, happiness, etc) are best thought of as fuzzy concepts in that they do not form mutually exclusive categories such as those suggested by forced-choice response formats. Specifically, Russell (1997) argues that emotion categories or labels are systematically interrelated and that they constitute scripts which involve an temporally-ordered sequence of occurrences (e.g., antecedent appraisals, physiological changes, expressions, behaviors, etc.) (see also Russell & Bullock, 1986a; Russell & Fehr, 1994). This view acknowledges the complex,

multicomponent nature of emotion. Russell (1995) provides still more objections to the works of Ekman and Izard. Nevertheless, he suggested that their approach has served to inspire and guide much recent and promising research and that it "has been and continues to be the single most heuristic research program on facial expression" (p. 389).

3.2 Verbal and Nonverbal Markers of Emotion

Much research has been generated by proponents of *somatic theories* of affect on the role of readily discernable markers of emotional experience and expression. The beginnings of the study of markers of emotion, with special emphasis on the nonverbal variety, has been attributed to Darwin (1872) (see Goldstein, 1983). According to the somatic perspective, emotional displays are spontaneous external reflections of internal states (Markus & Kitayama, 1991). More specifically, studies driven by somatic theories generally presume that: (a) emotional states occur at a sub-cortical level and that each emotion involves a distinct internal state; (b) felt basic emotions are externalized or pushed out and therefore concomitant with distinct facial and bodily expressions of these emotions; (c) these expressions or externalizations of emotion consist largely of neurophysiological signals designed to convey to others how one feels (i.e., internal state); (d) the internal process of emotion involves energy which presses toward externalization and this energy may, in some instances, be suppressed or countered by opposing energy (i.e., conscious control) ; and (e) the expression and recognition of basic emotions are universal phenomena (see Buck, 1984, 1988a, b; Ekman, 1994; Izard, 1994; Zajonc, 1998).

With specific reference to the notion that emotional expression is presumably squeezed or pushed out from the inside of a person (see DePaulo & Friedman, 1998; Terwogt & Stegge, 1994), Zajonc (1998) finds that the concept of *emotional expression* is *preemptive* in the sense that "it implies a ready-made theory of the emotions without the theory having been even partially substantiated" (p. 606). Alternatively, he argues that the term *emotional efference* is better suited to account for expressions of emotion. This position is further reinforced by evidence which suggests that emotional expression can be feigned which, in turn, implies that the emotion which has presumably generated the expression is not felt or

nonexistent[42] (DePaulo, 1992). Accordingly, Buck (1985) has argued that internal and external manifestations may sometimes function independently and that some level of self-control characterizes external expressions. Additional evidence with respect to emotional regulation is cross-cultural in that cultures show differences in the norms which guide emotional expression so that emotions which tend to be displayed and those which tend to be inhibited or suppressed will vary from one sociocultural setting to another (Mesquita & Fridja, 1992). A recent review of the literature on emotion regulation implies that many of the components of emotion and not just its expressive aspects can be regulated (Walden & Smith, 1997). Regulation appears to involve socialization and is therefore often studied in a developmental perspective (see Izard, 1990).

Despite the evident conceptual shortcomings and theoretical divergences which characterize the field of emotion (Cornelius, 1996; Zajonc, 1998), ample evidence suggests the existence of verbal and nonverbal indicators or markers of felt emotion (e.g., Adelmann & Zajonc, 1989; DePaulo, 1992; DePaulo & Friedman, 1998; Gross & John, 1997; Izard, 1971, 1993, 1994; Ekman, 1972, 1982, 1984, 1994; Mehrabian, 1972; Scherer,1981; Wallbott & Scherer, 1986). Verbal markers have usually been presented as the words or kind of language (e.g., profanity) used by a communicator of emotion (Cross, 1979; Kövecses, 1990; Levy, 1964; Plutchik, 1980a; Shimanoff, 1985) whereas their nonverbal counterparts (i.e., not words) have been found to include: facial markers (Ekman, 1972, 1993; Fridlund, 1994; Izard, 1993; McClintock, 1972; Russell, 1994); bodily movements, postures, and gestures (Ekman & Friesen, 1974; Montepare, Goldstein, & Clausen, 1987; Sogon & Masutani, 1989); vocal intonation or tone of voice along with other forms of prosody[43] (Argyle, Salter, Nicholson, Williams, & Burgess, 1970; DePaulo & Friedman, 1998; Frick, 1985; Mehrabian & Weiner, 1967; Pittam & Scherer, 1993; Scherer, 1986; Zajonc, 1998;

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[42] A similar position appears in the sociological perspective on emotion which holds that social situations and norms guide emotional expression rather than internal mechanisms (Kemper, 1991, 1993). Closely related are the notions of impression management and dramaturgy (Goffman, 1959). These perspectives pervade accounts of emotional expression in the service encounter by service providers (e.g., Hochschild, 1979, 1983a).

[43] Prosody encompasses the characteristics of spoken language that go beyond its lexical meaning such as rising or falling voice frequency (see Zajonc, 1998, p. 610).

Zajonc, Markus, & Wilson, 1974); and combinations of vocal and bodily (multichannel) indicators (Ekman, O'Sullivan, Friesen, & Scherer, 1991; Wallbott & Scherer, 1986).

Plutchik (1980a) has suggested that both verbal and nonverbal markers are important in conveying and interpreting emotional states:

> It is evident that every communication between two people involves a *context* as well as a *content*. The listener (or observer) has to consider nonverbal cues, such as tone of voice, facial expression, body gesture, body posture, and mannerisms, in interpreting (or decoding) the message which has been sent. The conclusion reached by the listener about the emotions that may be present is a complex inference based on multiple cues, only some of which are verbal. (p. 50)

Similarly, Krauss, Apple, Morency, Wenzel, and Winton (1981) suggest that:

> [t]he content of human communication conventionally is partitioned into two categories: verbal and nonverbal. The nonverbal category can be further subdivided into a paralinguistic channel and a visible channel. Roughly speaking, the verbal channel consists of the semantic content of speech, the paralinguistic channel consists of what is left in the speech signal when the semantic content has been removed (pitch, amplitude, rate, voice quality, contour, etc.), and the visible channel includes such expressive behaviors as facial expression, gesture, posture, appearance, and the like. (p. 312)

The evidence involving the face suggests that it is of primary importance in emotional expression and interpersonal communication (Heslin & Patterson, 1982). This importance is captured in a statement in Pervin (1984):

> The movement of the eyebrows, eyes, mouth, cheeks, and nose are critical in defining each distinct affect. The pattern of movements associated with each affect does not have to be learned. One does not learn to be afraid, to cry, to be startled, or to be angry, though one does learn when and where it is appropriate to be afraid, distressed, or angry. (pp. 134-135)

Similarly, Lazarus (1980) has stressed the importance of facial markers in emotion recognition:

> The conduct of our affairs is heavily determined by how we interpret the thoughts and feelings of others .... By watching the faces of others in action, we can to some extent know how they feel .... Even if the expression is modified or disguised, there will be tell-tale signs. (pp. vii-viii)

Results of early and often methodologically flawed studies by Klineberg (1938), Landis (1924, 1929), Sherman (1927), and others had suggested that the face was not a

reliable indicator of emotion in that there was no constant relationship between an expression of emotion and what it indicates (see Ekman, 1992a; Ekman, Friesen, & Ellsworth, 1982; McHugo & Smith, 1996). Against this backdrop, research over the late 1960s and early 1970s began to demonstrate the converse or that facial expressions could reliably indicate specific emotional states (Ekman, Sorenson, Friesen, & Ellsworth, 1969; Izard, 1971; Lanzetta & Kleck, 1970). Currently, there is considerable and almost overwhelming evidence that distinct facial expressions point to the identity of a small number of basic or fundamental emotions and thus reflect variations in emotional experience (Biehl et al., 1997; Cacioppo, Tassinary, & Fridlund, 1990; Ekman, 1989, 1992a, b, c; Ekman, Friesen, & Ellsworth, 1982; Izard, 1990, 1992). Moreover, emotional expressions have been used not only to mark what emotion is aroused but also when the emotion is aroused by internal (e.g., Ekman, Levenson, & Friesen, 1983) and external (e.g., Davidson, Ekman, Saron, Senulis, & Friesen, 1990) stimuli. Research of this type has assumed that there are hard-wired links between the elicitation of basic emotions and the triggering of combinations of facial muscles which, in turn, produce distinguishable expressions of each basic emotion.

Specific facial muscle movements combine to form expressions of basic emotions (e.g., Ekman & Friesen, 1975, 1978a). Many of the muscle movements involved in the facial expression of emotion are common to several expressions (Ellsworth, 1991). Accordingly, a specific facial expression does not simply involve a muscle or group of striated facial muscles. Rather, it is conveyed by a *global pattern* of facial activity (Ekman & Friesen, 1978a; Ekman et al., 1982; Fridlund, Ekman, & Oster, 1987; Frois-Wittman, 1930). Table 2 displays the facial components which have been associated to the expression of particular emotions by Darwin (1872), Frois-Wittman (1930), and Ekman and Friesen (1978a). More recent research has converged on this notion and has involved facial electromyography (EMG) (e.g., Cacioppo, Tassinary, & Fridlund, 1990; Cacioppo, Bush, & Tassinary, 1992; Dimberg, 1990a). EMG responses have emerged as valid probes of expressions which are too fleeting or subtle to be commonly observable (Cacioppo, Martzke, Petty, & Tassinary, 1988). For instance, contraction of the zygomatic major muscle when smiling has been associated with pleasant emotions and stimuli and is therefore presumed to reflect positive

Table 2

Important Components of Some Emotional Expressions

Expressions	Eyebrow raise	Eyebrow frown	Upper eyelid[d]	Lower eyelid	Lip corner[e]	Mouth open	Upper lip raise
Happiness-Joy							
Darwin				x	+	x	
F-W[a]			-	x	+		
E-F[b]				x	+		
Surprise							
Darwin	x[c]		+			x	
F-W			+			x	
E-F	x		+			x	
Anger-rage							
Darwin		x	+				
F-W		x	+	x			
E-F		x	+	x			
Disgust-contempt							
Darwin			-	x			x
F-W				x			x
E-F							x
Fear-terror							
Darwin	x		+			x	
F-W	x	x	+			x	
E-F	x	x	+			x	
Sadness-grief							
Darwin	x	x		x	-		
F-W	x	x			-		
E-F	x	x			-		
Crying							
Darwin		x	-	x	-	x	x
F-W		x	-	x			
Reflection							
Darwin		x					
F-W		x					

Source: Adapted from Smith (1989)

Note: The data in Table 2 are drawn from Darwin (1872), Frois-Wittman[a] (1930), and Ekman and Friesen[b] (1978a).

[c] The x sign indicates contraction of a particular component muscle such as the *frontalis* for an eyebrow raise.

[d] A + sign indicates contraction and a - sign indicates relaxation of the component muscle(s) involved.

[e] A + sign indicates contraction of the *zygomaticus major* to raise the corners of the lips and a - sign indicates contraction of the *depressor anguli oris* to lower the corners of the lips.

emotional imagery (e.g., Cacioppo, Petty, Losch, & Kim, 1986; Schwartz, Fair, Salt, Mandel, & Klerman, 1976) whereas contraction of the corrugator supercilii which produces the eyebrow frown has been linked to unpleasant stimuli and emotions and thus correlates with negative emotional imagery (e.g., Cacioppo et al., 1988; Cacioppo et al., 1986; Fridlund, Schwartz, & Fowler, 1984; Hjortsjö, 1970). A survey of this methodology appears in Fridlund and Izard (1983). An overview of this research is provided in Cacioppo, Bush, and Tassinary (1992) who state that:

> [f]acial efference can result in muscle action potentials that are too weak or brief to produce a visible facial action even though these muscular actions can be recorded continuously with facial electromyography. Evidence from several laboratories now indicate that: (a) EMG activity over the brow (*corrugator supercilii*) muscle region is higher and EMG activity over the cheek (*zygomaticus major*) and periocular (*orbicularis oculi*) muscle regions is lower for unpleasant than pleasant stimuli, and (b) electromyography activity over the forehead (*medial frontalis*) and perioral (*orbicularis oris*) muscle regions does not consistently differentiate stimuli that are judged to be mildly pleasant versus mildly unpleasant. (p. 516)

Dimberg and Öhman (1996) suggest that EMG measures offer a number of advantages over other physiological indicators such as skin conductance:

> First it is easy to quantify and compare different strength of facial muscle activities and it is also possible to detect activity which is not visible as an overt response. Second, the EMG-signal is almost instantaneously detectable which allows for the detection of rapid reactions with a short duration. (p. 170)

Many studies of emotion recognition have typically been based on sets of still portraits of prototypical facial expressions of basic emotions[44] (see Scherer, 1992). Ekman's and Izard's studies on emotion recognition have largely been based on this approach and have repeatedly and consistently demonstrated that raters can reliably recognize emotions in the face (e.g., Ekman, 1994; Ekman & Friesen, 1969b, 1975, 1976; Izard, 1971, 1990, 1994). For instance, Ekman, Friesen, and Ancoli, (1980) showed that pleasant and unpleasant or positive and negative emotions can be reliably distinguished by observers of facial

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[44] Depending on who ran the studies and the time period of the studies, the number of presumed basic emotions has tended to vary. Six basic emotions (happiness, surprise, fear, anger, disgust, and sadness) were suggested in Ekman & Friesen (1975). A greater number was proposed in Izard (1971) which included shame and interest. Later, Ekman and Friesen (1986) argued for contempt as a seventh basic emotion.

expressions. Specifically, they found that raters can reliably determine the intensity of expressed happiness, disgust, and sadness. Furthermore, this finding appears to be quite consistent across studies (Gudykunst & Ting-Toomey, 1989) regardless of whether displayed emotions were contrived (e.g., Ekman & Friesen, 1975) or spontaneous (e.g., Ekman et al., 1980). Similar findings have been reported in Canadian studies of emotion recognition (e.g., Kirouac & Doré, 1982, 1985). Other studies have demonstrated that subjects can more easily and reliably recognize the positive emotion of *joy* or *happiness* in comparison to negative emotions such as *sadness* (e.g., Hager & Ekman, 1979; Kilbride & Yarczower, 1976).

More generally, visual channels have typically had a greater impact than audio channels in conveying emotion. For instance, Rosenfeld (1978, p. 321) indicated that "in the communication of positivity and negativity, the visual-kinesic channel typically dominates the verbal-auditory channel." Similarly, DePaulo, Rosenthal, Eisenstat, Rogers, & Finkelstein (1978) argued for the primacy of video or visible over paralinguistic cues with respect to the amount of affective information they convey. Nevertheless, some research has indicated that displayed emotional states are communicated mostly by verbal rather than non-verbal channels (e.g., Krauss, Apple, Morency, Wenzel, & Winton, 1981). In a like vein, Carroll and Russell (1996) found that a story (verbal content) relating the situation that a person is in had a greater impact on inferences made about the emotion that person was feeling than subsequent (and sometimes contradictory) pictures of the person's emotional expressions. For instance, a fear expression displayed in a picture was rated as anger when the preceding story implied that the person would feel anger. However, this finding may potentially be attributed to the greater reliability subjects afforded to the story than to a photograph of questionable quality (Zajonc, 1998). When different auditory channels were compared, most experimental research findings have suggested the greater importance of non-verbal markers. Accordingly, prosody (voice parameters such as inflection of vocal utterance, energy, frequency range, rhythm, etc.) has typically been shown to dominate verbal markers (word content) in emotion recognition tasks (Argyle, Salter, Nicholson, Williams, & Burgess, 1970).

Mehrabian (1971) investigated *double-edged messages* where a verbal message was contradicted by nonverbal cues (i.e., tone of voice, facial expression, posture, and gestures) and proposed the following linear model of an individual's ability to communicate feelings or attitudes to others:

Total Feeling = 7% Verbal + 38% Vocal Feeling + 55% Facial Feeling

Accordingly, *total feeling* conveyed by an individual to others appeared as primarily a function of facial expressions (Mehrabian, 1971). Such findings lend support to the work of Ekman and that of Izard and highlight facial expressions as the most important conveyor of emotion. For some, the percentages reported in Mehrabian (1971) represent accurate estimates of variance accounted for by each of the three channels of affect communication (e.g., Leathers, 1976). The relative importance of verbal and nonverbal components of emotional expression was also investigated in Mehrabian and Weiner (1967). Actors were asked to say certain things about a hypothetical third person (verbal component) and simultaneously express a positive or negative attitude by tone of voice or by facial expression (nonverbal component). Judges were then asked to assess each actor's attitude. It was found that judges tended to base their ratings on an actor's tone of voice rather than on the meaning of his/her spoken words. For instance, if the actor conveyed a negative tone of voice while saying the words 'dear' or 'thanks,' judges rated the actor as having a negative feeling toward the third person. Alternatively, if the actor used the words 'don't' and 'terrible' with a positive tone of voice, the actor was rated as feeling positive toward the third person. This study clearly indicated the greater importance of nonverbal indicators of how an individual feels about someone else.

More recent investigations have also confirmed the importance of tone of voice in accurately conveying how one feels (DePaulo, Lassiter, & Stone, 1982; Ekman & Friesen, 1969a; Zuckerman, DePaulo, & Rosenthal, 1981). For instance, Ekman and Friesen (1969a) showed that when individuals are experiencing intense emotions, it may be difficult for people to mask their true feelings by regulating their tone of voice so as to convey a false impression. Nevertheless, raters typically tend to underutilize the information conveyed by tone of voice (DePaulo, Lassiter, & Stone, 1982). More generally, Scherer (1986) argues that

insufficient attention has been paid to the potential impact of voice quality parameters on the judgment of emotion because of various methodological and conceptual problems with the encoding and decoding of stimuli. In addition, variations in findings are often attributable to individual differences. Nevertheless, Scherer (1986) provides a review of studies which had focused on the acoustic parameters associated with particular emotions. Enjoyment/happiness appeared to have been understudied whereas sadness appeared to have received the most attention across the studies that were examined. Scherer (1986) used his appraisal model of emotion to predict the voice patterning that would occur after each of five stimulus evaluation checks (SECs) proposed in his model. For instance, if *novelty check* resulted in an appraisal indicating that the situation was novel rather than old, interruption of phonation, sudden inhalation, silence, or a fricative sound with a glottal stop may occur. In Scherer's model of appraisal, specific emotions are generated based on outcomes on the five SECs. Scherer (1986) suggested that the effects of his proposed appraisal dimensions and the subchecks involved in SECs can be bundled into the dimensions of hedonic valence, activation, and power. These dimensions are very similar to those used to show interrelationships among emotions in other studies (e.g., Russell, 1979, 1980, 1997). By basing himself on these dimensions and a thorough review of past research, Scherer's (1986) attempt at relating voice parameters to emotional states resulted in a series of untested predictions. For instance, he suggested that enjoyment/happiness would involve in a voice type indicating wide hedonic valence, relaxed activation, and slightly full power. This typology was further broken down in specific acoustic parameters: such as increased frequency range, a drop in frequency, and a drop in speech rate. Alternatively, sadness was said to involve narrow hedonic valence, lax activation, and thin power.

Gosselin, Kirouac, and Doré (1995) point out the convergence of a wide array of studies on the primacy of nonverbal factors in the recognition of felt rather than simply displayed (or potentially feigned) emotion. In their study, actors were hired to perform feigned and truly felt emotions. They reported that observers were more accurately able to recognize emotions when they were derived from true feelings than when they were being feigned. A string of research has focused on differentiation of 'felt' smiles from 'false' or

'feigned' smiles (e.g., Ekman, 1990; Ekman & Friesen, 1982; Ekman, Friesen, & O'Sullivan, 1988; Frank, Ekman, & Friesen, 1993). In general, these studies have provided strong evidence that people can recognize the emotional states of others via facial markers and that they are able to discern when emotions are truly felt and when they are being feigned. Ekman (1990) reexamined claims by the French anatomist Duchenne de Boulogne (1862/1990) who found that the smile consisted in two distinct components which, in turn, were driven by different mechanisms. He found that:

> frank joy is expressed in the face by the combined contraction of the zygomaticus major muscle and the obicularis oculi. The first obeys the will, but the second ... is only put in play by the sweet emotions of the soul ... fake joy ... cannot provoke the contraction of this muscle. (p. 126)

Specifically, when one smiles, the zygotomaticus major muscle pulls up the corners of the mouth. On the other hand, the obicularis oculi forms the creases or crinkling around the eye. According to Duchenne de Boulogne, one can fake the action of the former, but not that of the latter. In other words, it is only when one experiences genuine feelings of joy that one's eyes become involved in the action of smiling. Ekman (1990) has referred to the felt smile which involves the obicularis oculi as the *smile of enjoyment* and named it the *Duchenne Smile* and has differentiated it from false or social smiles (see also Ekman, Friesen, & O'Sullivan, 1988). In one study, Frank et al. (1993) reported that enjoyment smiles or genuine smiles were more accurately perceived by observers than feigned smiles. More precisely, they found that recognition of felt smiles peaked to 81% when subjects were specifically instructed to look for real smiles. Even under conditions where subjects were not instructed to look specifically for real smiles, clear recognition of felt smiles or enjoyment smiles was still apparent. Moreover, subjects reacted more positively to felt smilers than to false smilers.

Some studies of emotion recognition have relied on continuous film clips rather than still portraits. In general, the use of audio and video channels which are combined into a film allows the study of the separate and/or the simultaneous effects of various channels by which emotion may be expressed (e.g., face, posture, gestures, speech, words, etc.). For instance, Ekman, Friesen, O'Sullivan and Scherer (1980) made use of videos developed to study

deception by Ekman and Friesen (1974). Three channels (face, body, and speech) were examined separately with respect to their effects on judgments of affect and personality and then compared to their simultaneous effects (face, body, and speech together). No clear conclusion was reached. However, the researchers did find that channel importance varied with the type of situation examined and the type of attribute being judged. Tice et al. (1986) looked into whether the facial expression of newscasters during a presidential election campaign could influence voting. Of the two consecutive studies they conducted, the first involved examining whether viewers can recognize positive and negative biases in newscasters discussing or commenting positive or negative election-relevant events. Subjects were only exposed to the video channel of segments (no audio or verbal content). It was found that "[s]ubjects were able to detect differences in positivity of facial expressions of newscasters that occurred during reference to unequivocally positive or negative events" (p. 293).

In another study, Wallbott and Scherer (1986) produced a variety of film clips with the aid of professional actors. Improvisation was encouraged so as to augment the natural quality of the finished product. They then went on to examine whether various displayed emotion and scenario combinations would be recognized by raters and also attempted to identify which cues or channels of emotional expression were more closely associated with correct identification of four categorical emotions, namely, joy, anger, surprise, and sadness. They found that "anger and sadness are the most different emotions in terms of nonverbal behavior" (p. 693). Nonverbal behavior included movement behaviors (i.e., rapidity, expansiveness, energy, activity, and pleasantness) and voice behaviors (rapidity, intensity, pitch/frequency, melodiousness, and pleasantness) (see also Scherer, 1982b). Moreover, they reported that video channels were more effective than audio channels in presenting emotion stimuli in terms of decoding accuracy. Similar findings have appeared in Mehrabian (1972). Moreover, Wallbott and Scherer (1986) found that decoding accuracy was highest for anger, this was followed by sadness, and lower accuracy ratings appeared for joy and surprise. These findings replicated those found in Ekman (1982) and Scherer (1979).

Finally, some studies of cues to emotion have removed themselves from laboratory settings and have used diaries in attempts to identify the markers of emotion that individuals do in fact use in naturally-occurring settings to infer emotion in self (e.g., Havilland & Goldston, 1992; Oatley & Ducan, 1992, 1994; Planalp, DeFrancisco, & Rutherford, 1996) and others (e.g., Averill, 1982) . The list of individual markers that persons *could* use is apparently enormous (Bowers, Metts, & Duncanson, 1985; Metts & Bowers, 1994). Diary studies generally indicate that multiple cues are used in judging emotion. For instance, Planalp et al. (1996) found that respondents reported using *vocal cues* (19% of all cues) most often to identify whether a person was experiencing an emotion and the type of emotion that was being displayed. Respondents also cited vocal cues most often as *most important* (24% of most important cues). *Facial cues* emerged as the second most commonly cited cue (13%) and were reportedly considered also as the second *most important* (18%) type of cue by respondents. *Indirect verbal cues* which typically suggested a cause for the apparent emotion (e.g., He's such a jerk) were utilized often (16%) and were judged third *most important* (14%). *Direct verbal cues* (e.g., I know she was angry because she told me) were judged *most important* only on a few occasions (2%) and were referred to very seldom (3%) by respondents in making their judgments. Cues related to *body postures/positions* and *movements* were used less often than vocal, facial, and indirect vocal cues (11%) and their *most important* status (12%) was deemed below that of these cues. *Physiological cues* (e.g., She was crying) came up infrequently (5%) but were rather often deemed *most important* (10%). Cues within the *activity* variety (e.g., Jumping out of bed) were also commonly used (12%) but less often deemed *most important* (7%). Cues reflecting the *context* of emotional experience (e.g., She had no money to pay bills) were referred to regularly (12%) but almost never emerged as *most important* (1%). Trait cues (e.g., She's normally quite active) emerged infrequently (5%) and were deemed *most important* by few respondents (6%). Strikingly similar patterns appear in Averill's (1982) investigation of anger. Accordingly, both studies suggest that people typically rely on vocal, verbal, facial, and body/gestural cues to make judgments of emotion in others.

CHAPTER 4

THE CLASSIFICATION AND MEASUREMENT OF EMOTIONS

This chapter provides an overview of (1) various classification attempts of emotion; (2) various approaches to measuring emotion in self and others; and (3) the contributions of researchers in consumer behavior to the measurement of consumption emotions. Emotion emerges as a topic that has recently found its way into explanations of a variety of phenomena in marketing (Bagozzi et al., 1999). A proper grasp of past and current attempts at classifying and measuring emotion can serve to drastically augment the capacity of consumer researchers to make use of the *emotion* construct in various forms of research.

4.1 Classification of Emotions: Dimensional and Categorical Perspectives

Attempts at classifying emotion within psychology have typically been based on either a dimensional or categorical approach (see Ekman, 1992b). Dimensional perspectives have generally attempted to map affective terms (i.e., emotion words) or self-reported reactions to stimuli on a multidimensional space. Throughout a variety of studies, the ensuing dimensions have been interpreted, labeled, and presented as the dimensions which underlie the structure of affect (e.g., Russell, 1979, 1980). Overall, dimensional studies have demonstrated varying levels of convergence with respect to the number and nature of the dimensions of affect. On the other hand, categorical attempts at classifying emotion are typically grounded in functionalist perspectives on emotion and are closely linked to theories which hold that some emotions are basic (e.g., Ekman, 1984; Izard, 1977; Johnson-Laird & Oatley, 1992; MacLean, 1993; Plutchik, 1984). Each basic emotion is said to involve particular neuro-physiological concomitants (Levenson, 1992), particular expressions (Ekman, 1994; Izard, 1994), and a particular phenomenology (Izard, 1972, 1977). In some theories, categorical emotions have been linked to patterns of cognitive appraisal (e.g., Smith & Ellsworth, 1985; Weiner, 1986), specific behaviors (e.g., Plutchik, 1984), patterns of functional or instrumental behavior (Izard, 1977), and action tendencies (e.g., Fridja, 1986).

Ekman (1992b) clearly makes the distinction between categorical and dimensional approaches to emotion:

> A number of separate, discrete, emotional states, such as fear, anger, and enjoyment, can be identified which differ not only in expression but probably in other important aspects, such as appraisal, antecedent events, probable behavioral response, physiology, etc. This basic emotions perspective is in contrast to those who treat emotions as fundamentally similar in most respects, differing only in terms of one or more dimensions, the most common ones being arousal, pleasantness, and activity; or those who carve emotions into just a positive and negative state. (p. 170)

Similarly, Ellsworth (1991) argues that:

> [t]heories of emotion can be characterized in terms of the number of emotions they postulate: two, a few, quite a few, or an infinite number. Two-emotion theories are valence theories: the organism feels good and approaches, or feels bad and withdraws (Young, 1943; Zajonc, 1980). By adding an intensity or activation dimension, orthogonal to the valence dimension, many theorists have expanded the basic positive-negative dimension into a two-dimensional space into which many, possibly an infinite number of emotions can be fitted (Woodworth & Schlosberg, 1954; Russell, 1980) .... Those who posit a few emotions (Tomkins, 1962, 1963; Ekman, 1984; Izard, 1977, among others) reject the notion that differences in activation and valence, or even differences along three dimensions (Wundt, 1907; Schlosberg, 1954; Osgood, 1966) can adequately capture the fundamental qualitative differences in the subjective experience of various emotions. Instead, they postulate a small number of innate, categorically-distinct, hardwired neural programs corresponding to certain "basic" emotions: fear, sorrow, happiness, and anger are included on the lists of almost all these theorists; after the lists diverge. Each of the basic emotions has distinct neurophysiological, expressive, and subjective characters. (p. 146)

Smith and Ellsworth (1985) suggest that the two approaches are not incompatible. They add that:

> [e]ven in a categorical system, dimensions may be useful for describing the similarities and differences among the categories. In a largely dimensional system, common emotion categories may represent regions of the dimensional space that are frequently experienced or subjectively salient. Also, it is possible for a categorical theory to include hypotheses about the relations among the discrete emotions (cf. Plutchik, 1980[b]). (p. 813)

4.1.1 Dimensions Underlying the Structure of Emotion

One group of studies has clearly taken a dimensional perspective on the underlying structure of emotion, mood, or, more generally, of affect. Various methodological venues have been used in investigations of continuous dimensions of affect. Some early experimental studies had based their results on synesthesia where stimulation in one sense was observed to affect perception in another while others had focused on physiological

responses to stimuli (see Collier, 1996; Mehrabian & Russell, 1974a, b). More recent approaches have included the factor analyses of semantic differential ratings applied to the meaning of emotion words (e.g., Osgood & Suci, 1955; Osgood, 1969), the factor analyses of data on verbal self-reports (e.g., Borgatta, 1961; Meddis, 1972), the multidimensional scaling of verbal judgments of emotional objects such as facial expressions (e.g., Abelson & Sermat, 1962; Russell & Bullock, 1985, 1986a, b; Schlosberg, 1941, 1952), and the multidimensional scaling (MDS) of adjectives judged to denote feelings (e.g., Bush, 1973; Russell, 1979, 1980; Zevon & Tellegen, 1982).

Early investigations of the dimensionality of affect varied with respect to the number of proposed dimensions. For instance, Duffy (1941) proposed *arousal* as the single continuous dimension underlying affective experience whereas Davitz (1969) suggested the existence of two dimensions, namely: *arousal* and *valence*. On the other hand, Osgood (1969), Tucker (1955), as well as Solomon (1954) used the semantic differential technique and had independently proposed that *evaluation*, *activity*, and *potency* were the three main factors underlying affect. Similar results were obtained in Schlosberg (1954) as well as in Wundt[45] (1905) who suggested (1) *arousal*, (2) *valence*, and (3) *potency, strain relaxation,* or *attention*.

In one study, Schlosberg (1941) asked subjects to rate emotional expressions which appeared in seventy-two Frois-Wittmann photographic stills and found that the judgments took on a circular shape when they were positioned on a two-dimensional space whose axes were labeled (a) *pleasantness-unpleasantness* and (b) *attention-rejection*. Later, Bush (1973) reported that MDS analyses of emotional reactions to a set of adjectives designed to sample

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[45] Wundt is regarded as the father of experimental psychology. In his earlier writings, he suggested that the single dimension of *pleasure-displeasure* could account for differences among emotions. In 1896, he revised his original system and suggested a three-dimensional theory of feeling which was based on: *pleasantness-unpleasantness*, *excitation-inhibition*, and *strain-relaxation* (for a historical account, see Averill, 1980c). More generally, Wundt (1905) has been associated with a type of emotion theory that has been called *central* and which suggests that emotional experience consists primarily of "the irreducible experience of pleasure or pain, of central origin" (Fridja et al., 1989, p. 212). This perspective is in clear opposition to the *peripheral* perspective suggested by James (1884, 1890) which stressed the role of the viscera in emotional experience and to the *cognitive* perspective posited by Arnold (1960) and Schachter and Singer (1962).

the entire domain of emotional responses resulted in three comparable factors, namely: *pleasantness-unpleasantness*, *level of activation*, and *level of aggression*. More generally, Ekman, Friesen, and Ellsworth (1972) found that *pleasantness/unpleasantness*, *interest/passivity*, and *intensity of expression/control of expression* were the most consistently identified components of emotional expression. A three-dimensional model was also suggested in Mehrabian and Russell (1974a, b; see also Russell & Mehrabian, 1977; Russell & Pratt, 1980) where three analogous factors were repeatedly found in attempts to describe the affective quality attributed to environments. The factors were labeled *pleasure-displeasure*, *degree of arousal*, and *dominance-submissiveness*. Variations in the number of factors extracted in the older studies mentioned above appear to be partly a function of the number and type of stimuli that were used. Nevertheless, Izard (1972) argues that:

> [w]ithout exception, bipolar factors related to (a) pleasantness and (b) intensity or activation have appeared as the predominant explanatory factors in every study of the dimensions of experience. They have appeared in spite of variations among stimulus modes (facial expressions, emotion concepts, self-reports of mood, and self-reports of emotion-laden critical incidents), and response modes (a single P-U scale, a single scale rating the global similarity between two facial expressions, a set of diverse emotion terms, a set of semantic differential scales, an a priori set of bipolar dimensions scales, and free responses). (p. 131)

Quite similarly, Russell has repeatedly suggested that (a) *valence* - a bipolar evaluation factor (usually ranging from pleasantness to unpleasantness) - and (b) *degree of arousal* - a bipolar activity factor (usually ranging from low to high levels) - are the two primary or main dimensions of affect (see Russell, 1979, 1980; Russell & Carroll, 1999a, b). For instance, Russell (1980) used multidimensional scaling (MDS) on 28 words denoting various forms of affect. Some of the words clearly represented basic emotions (e.g., angry, happy, sad, etc.) while others reflected less prototypical emotions (e.g., gloomy, pleased, bored, etc.); and still others suggested less specific states (e.g., sleepy, serene, tired, aroused, etc.) that are usually not taken to reflect emotions. The two primary dimensions of affect emerged. Additional dimensions were presented as minor. In an earlier study, Russell's (1978) MDS analyses of emotion terms suggested a convergence on several dimensions which had consistently showed lower levels of inter-correlation indicating that they were

discriminant or distinct. The two primary dimensions of *pleasure-displeasure* and *arousal/activation* were captured by this procedure. A third dimension included some combination of *dominance, potency, aggressiveness,* and *control.* The fourth and fifth dimensions were labeled *depth of experience* (e.g., serious and profound as opposed to shallow) and *locus of causation* of the emotional state (i.e., internal or external), respectively. Russell (1978) argued that the last two dimensions were less essential or secondary to emotion and were in some cases found to exhibit higher levels of correlation with the two main dimensions thus putting their levels of discriminant validity in question. Similarly, Russell (1987) argued that it was possible to extract more than two MDS dimensions (i.e., *valence* and *arousal*) in his analysis. However, he suggested that a model based on two dimensions accounted for most of the variance in the data he examined. Similar findings have appeared in Izard (1972) who proposed *pleasantness-unpleasantness* and *arousal* as main dimensions and reported that results on additional dimensions were less consistent. Smith and Ellsworth (1987) compared dimensional results from studies based on judgments of emotional expressions in others (e.g., Schlosberg, 1941) and those which looked into subjective feeling states (e.g., Izard, 1972; Russell, 1980; Russell & Mehrabian, 1977). They found that the proposed dimensional structures were essentially similar with *valence*, as one dimension, and *intensity*, as the other.

It is apparent from these studies that more than three dimensions are difficult to justify in attempts at efficiently explaining the underlying structure of affect. In general, the studies cited above along with other more recent studies (e.g., Feldman, 1995; Mayer & Gaschke, 1988) have usually indicated that between 50% and 60% of the variance in affect can be explained by the bipolar *valence* dimension whereas the *arousal* dimension has typically accounted for about half as much variance (i.e., approx. 25% to 30%) (e.g., Feldman, 1995; Mayer & Gaschke, 1988). In general, third dimensions have accounted for considerably lower amounts of explained variance across studies (Mano, 1991; Russell, 1987; Russell & Mehrabian, 1977). Zajonc (1998) argues that:

> [i]t would indeed be surprising if the valence dimension did not dominate the dimensional structure of emotion. To the extent that emotions serve the adaptive function and allow the individual to draw on the resources of the environment and

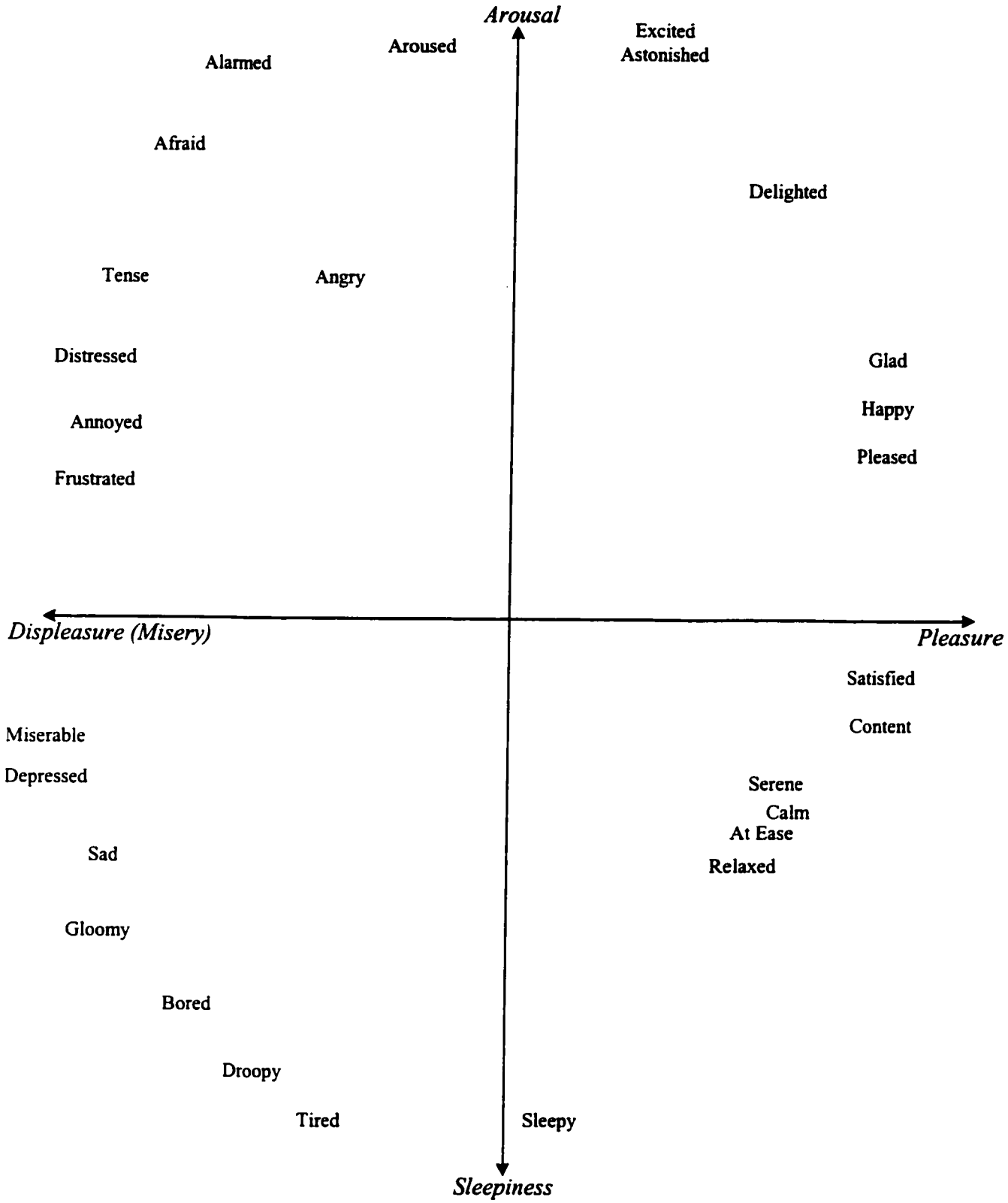
> protect the individual from its dangers, the approach-avoidance dichotomy is all important. In fact, all studies, regardless of their basis, for example, facial expression or subjective feeling, also found valence as the dominant dimension, with intensity a close second. (p. 608)

Russell (1979, 1980, 1987, 1997) has repeatedly suggested that affective states are best represented by a circular arrangement of emotion terms in the two-dimensional or Cartesian bipolar space which he named the *circumplex model*. Russell (1987) interpreted the horizontal axis of his model as the bipolar *pleasure-displeasure* dimension and the vertical axis as a continuum ranging from sleep to states of high *arousal*. The two dimensions have been presented as independent (Russell, 1978, 1980, 1987). Specific emotions appear as points on the two-dimensional space (see Figure 3). For instance, *delight* is defined by the combination of high pleasure and high arousal whereas *depression*, its opposite, is defined by low levels on each of the two dimensions. On the other hand, *distress* is defined by high arousal and low pleasure whereas *contentment* is characterized by low arousal and high pleasure. More recently, Lang (1995) presented standardized emotion-eliciting photographic stills to subjects and mapped their emotional responses onto a dimensional space based on Russell's (1979, 1980) two dimensions. Accordingly, *sadness* emerged in the low arousal/low pleasure quadrant whereas *joy* appeared in the high arousal/high pleasure quadrant.

Many other researchers have suggested that emotions can be arranged in a circular structure (e.g., Block, 1957; Fischer, Heise, Bohrnstedt, & Lucke, 1985; Schlosberg, 1941; Plutchik, 1980b; Watson & Tellegen, 1985). For instance, Plutchik (1980b) asked respondents to provide (bipolar) semantic differential ratings (with anchor points such as *good-bad, high-low, active-passive,* etc.) for 15 emotions. Subsequent factor analysis of the ratings revealed two underlying factors. It was also found that the emotions which were studied could be sequentially arranged in a circular fashion forming a structure similar to that reported by Russell (1979, 1980). Plutchik (1980b) reported that: (a) all areas of the circumplex were represented in that none were blank and (b) some emotions clearly emerged opposite to others in that they were about 180 degrees apart (e.g., *assertive* and *withdrawn*; *accepting* and *hostile*). In reference to this study, Russell (1987) argued that Plutchik (1980b)

Figure 3

Russell's Circumplex Space with MDS Solution for 28 Affect Words



Source: Adapted from Russell (1978)

never interpreted the axes of his model but that had he done so, the labels for the two dimensions would have mirrored those which appear in Russell (1979, 1980).

Russell (1997) attempted to summarize many of the studies which have converged on the notion of a circumplex model and presented a general circumplex model of emotion/affect that "abstracts across these different investigations" (p. 211). This circumplex appears in Figure 4. The center of the space is to be interpreted as an adaptation level or neutral point. Russell (1997) suggests that:

> [a] structure (that is, a representation of relations among categories [of emotion]) that is capable of capturing a continuously varying reality - and indeed that is now well established for emotion - is the circumplex. (p. 210)

Russell has stressed the fuzzy nature of emotion categories and their interrelationships (Russell, 1997; Russell & Bullock, 1986a; Russell & Fehr, 1994). He holds that:

> [i]n using any one emotion category, it is therefore essential to recognize that membership in each category is graded, that categories are related to one another in a systematic fashion - hence the circumplex and the fuzzy hierarchy. (1997, p. 216)

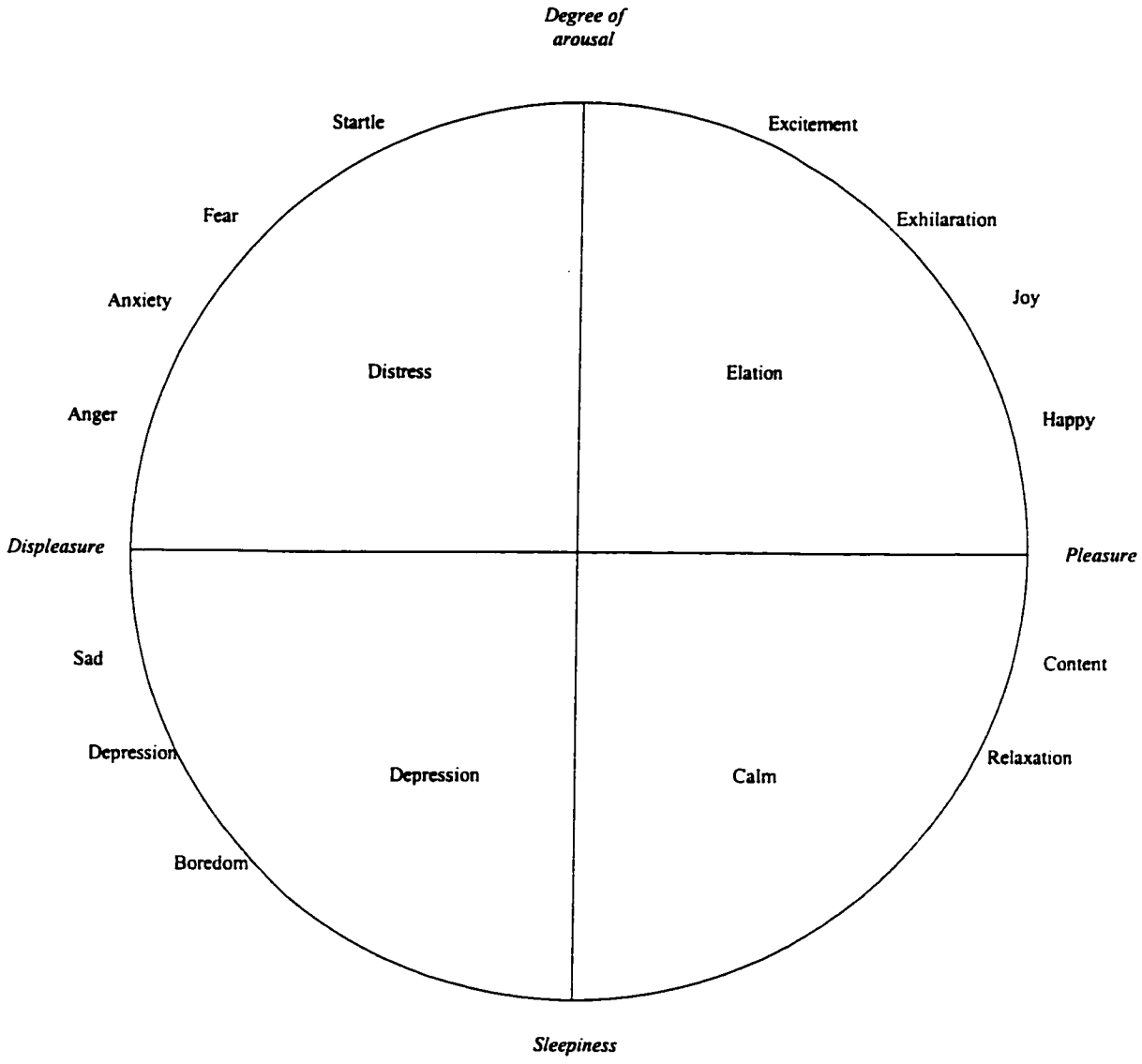
More generally, Bagozzi et al. (1999) state that:

> [t]he idea behind the circumplex model is that emotions exist in bipolar categories (e.g., happy-sad, nervous-relaxed) and can be arranged in a continuous order around the perimeter of a two-factor space. The closer emotions are to each other on the perimeter, the more similar they are. (p. 189)

Another idea which underlies the circumplex is that basic emotions are analogous to primary colors. The circumplex is thus paralleled to a palette or color wheel whereby emotions are clearly interrelated like colors in that gradations of the more basic emotions result in other less fundamental emotional states (McDougall, 1921; Schlosberg, 1941). Plutchik (1997) argues that the circumplex has emerged as a *general model* not only for the classification of emotion but also for that of personality structure (i.e., traits). He suggests that although both fields have traditionally been viewed as separate domains, they share many aspects which permit them to be considered as components of the "domain of interpersonal relations" (1997, p. 17; see also Schaefer & Plutchik, 1966). These aspects include: (a) an overlap in words used to describe personality and emotions and (b) an overlap in functions served by emotions and traits of personality.

Figure 4

Russell's Summary Circumplex Model of Affect



Source: Adapted from Russell (1997)

The reduction of affect to two primary dimensions generally stems from the notion that particular affective states are similar and dissimilar and that they are therefore interrelated (Russell, 1978). It also reflects a need for parsimony (Mano, 1991; Russell & Carroll, 1999a). One drawback of the circumplex model is that it does not account for antecedent appraisals to emotional experience. Accordingly, subtle differences in antecedent conditions among seemingly similar consequent emotions may not be captured by the circumplex (Bagozzi et al., 1999). Smith and Ellsworth (1987) suggested that additional dimensions of emotional experience (e.g., *certainty* and *anticipated effort*) which are more related to antecedent appraisal have tended to discriminate among positive and negative dimensions. Moreover, some categories of 'emotion words' that are mapped out on the circumplex are not emotions (Clore et al., 1987) and some important emotions such as *love* are not well accounted for by the model (Richins, 1997). Furthermore, studies have clearly demonstrated that the shape of the circumplex may vary with respect to the types of descriptors that are offered to subjects. Specifically, when descriptors of physical states (e.g., aroused) are included as in Russell (1980), in Larsen and Diener (1992), as well as in Watson and Tellegen (1985), a rounded or circumplex shape tends to emerge (see Scherer, 1984a; Shaver et al., 1987). On the other hand, when physical states are not included in self-report measures, the two-dimensional space appears flatter or elliptic (e.g., Mackinnon & Keating, 1989; Richins, 1997). Additionally, the omission of descriptors of physical states has typically altered the behavior and interpretation of the second MDS dimension in many studies. This dimension was originally interpreted and labeled *level of arousal* in Russell (1979, 1980). However, Richins, (1997) reported that her second MDS dimension may best be interpreted as *receptivity* or *activity*. Somewhat similarly, Shaver et al. (1987) labeled their second MDS dimension *intensity*. Clearly, the results of dimensional studies of affect are highly dependent on the content of the set of descriptors that are presented to respondents.

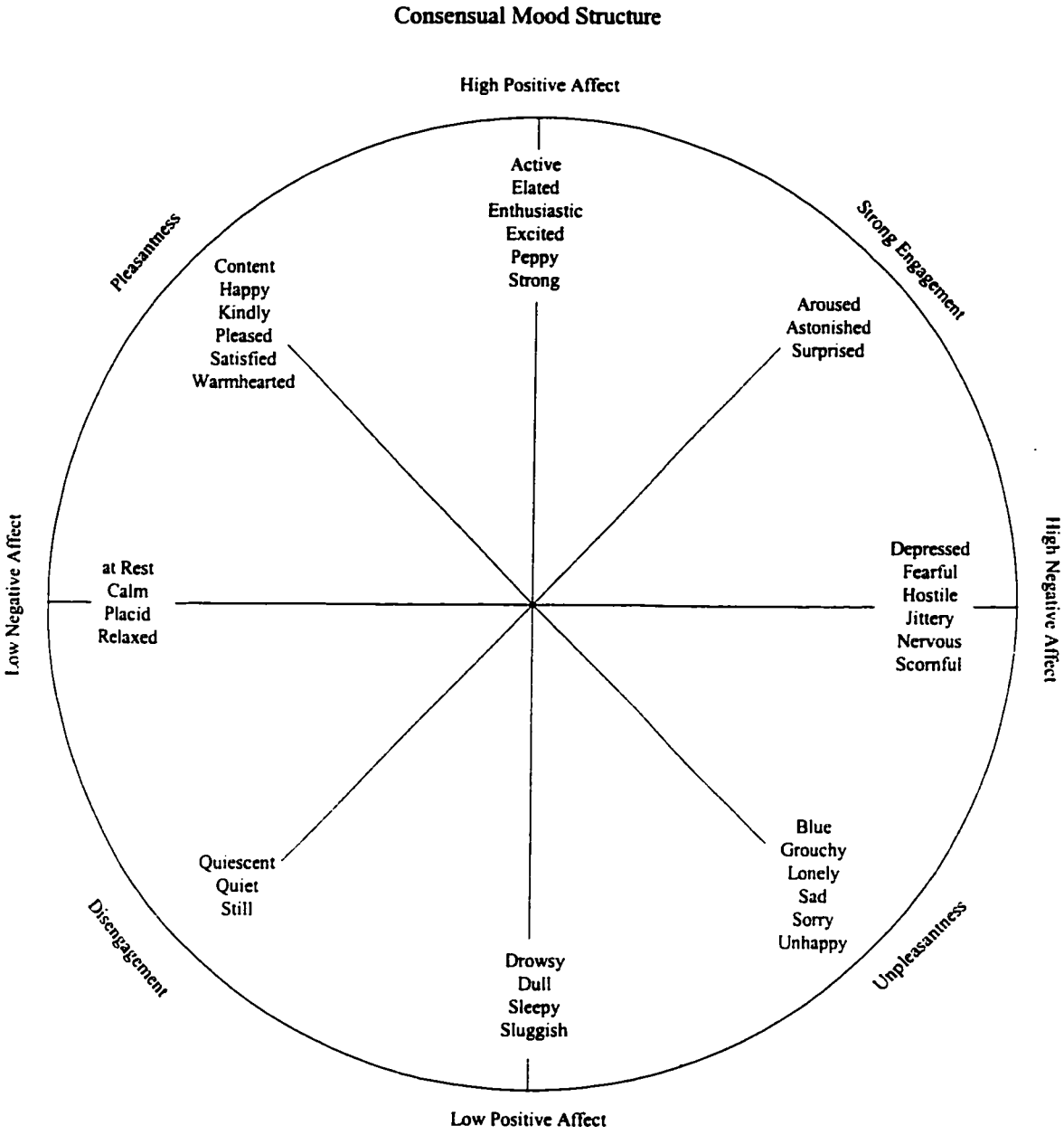
Other problems with dimensional approaches involve the close proximity of negative emotions with respect to their positions on the two dimensions. Specifically, Ellsworth (1991) argues that the negative emotions grief, fear, and anger are all intense and unpleasant and thus appear close to one another on the circumplex. Thus, phenomenologically, there

appears to be something odd or missing from an approach which for instance categorizes fear as a more aroused version of grief (see also Fridja, 1986). Finally, a more general problem with dimensional studies of affect in psychology is that they do not consider the social or interpersonal context of emotion. Zajonc (1998), a psychologist, concludes that emotions are partly interpersonal phenomena. However, studies such as those of Russell (1979, 1980) clearly presume that emotions are intrapersonal occurrences which take place irrespective of social context considerations (cf. Hochschild, 1983a).

A similar model to that of Russell (1979, 1980) was proposed by Watson, Tellegen, Clark, and colleagues. In one study, Zevon and Tellegen (1982) asked subjects to complete a 60-item mood adjective checklist on a daily basis over a 90 day period. They reported that in most cases, the factor solutions indicated independence of positive and negative affect dimensions. However, they also found that the adjectives *sleepy* and *calm* often emerged at opposite ends of the two presumed monopolar factors. Zevon and Tellegen (1982) proposed that the factors were "descriptively bipolar but affectively unipolar dimensions" (p. 112). Furthermore, they found that these results did not contradict those which pointed to the bipolarity of the valence dimension. They attributed their discrepant findings to a different rotation of the axes. Specifically, they suggested that Russell's (1979, 1980) findings would have been partly replicated (i.e., a bipolar pleasant-unpleasant dimension and a unipolar arousal dimension [as opposed to a bipolar arousal dimension]) had they rotated their factor solution by 45 degrees. In another study, Watson and Tellegen (1985) reanalyzed data in studies that had yielded results which displayed deviations from Russell's (1979, 1980) circumplex. Watson and Tellegen (1985) initially generated a two-dimensional structure of mood which they described as *descriptively bipolar* with a dimension they named *engagement-disengagement* that was orthogonal to another labeled *pleasantness-unpleasantness*. Next, Watson and Tellegen (1985) rotated the factor structure by 45 degrees. This yielded two alternative dimensions which they interpreted as *negative* and *positive* affect. Watson and Tellegen (1985) stressed "the basic compatibility of the structures defined by these two alternative rotations" (p. 222). Accordingly, the circumplex model proposed by Watson and Tellegen (1985) (see Figure 5) does show some apparent deviations from the

Figure 5

Watson and Tellegen's Two-Factor Structure of Affect



Source: Adapted from Watson and Tellegen (1985)

model suggested by Russell (1979, 1980) (see Figure 3), however, it is best viewed as a rotational variant of Russell's (1979, 1980) model (see also Bagozzi et al., 1999). Similarly, Mayer and Gaschke (1988) factor analyzed the responses of over 1600 subjects on three alternate mood scales. They found that the separate *Positive Affect-Tired* and *Negative Affect-Relaxed* factors were rotated variants of the bipolar *Pleasant-Unpleasant* and *Arousal-Calm* dimensions. Due to the circular structure of affect, "any rotation of the axes is possible because the structure of affect is determined by the circular ordering" (Russell, Weiss, & Mendelsohn, 1989, p. 494).

More generally, Scherer and Wallbott (1994) state with respect to dimensional studies of emotion that:

> [t]here can be little doubt that different aspects of emotional experience can be represented in a dimensional space. Because it has been amply demonstrated that virtually all lexical entries in a language can be mapped onto two or three dimensions (valence, activity, and possible potency; Osgood, Suci, & Tannenbaum, 1957), it is not surprising that the same is true for verbal emotion terms (Davitz, 1969; Russell, 1980) .... Similarly, the fact that photographs of posed facial expressions can be consistently positioned in a valence-arousal space (Schlosberg, 1952; for reviews see Fridja, 1986; Plutchik, 1980[a, b]) is not surprising given that positive and negative emotions can be posed with different degrees of intensity or implied arousal. (p. 311)

Averill (1975) proposed the Semantic Atlas of Emotional Concepts which contained over 500 emotion-related terms. So as to classify terms and to describe the domain of emotion, he concluded that four factors were necessary and yet not necessarily sufficient for an exhaustive description of the domain. The factors were: (a) *evaluation*, (b) *activation*, (c) *control*, and (d) *depth of experience*. With respect to these factors, Averill (1980c) states that:

> [t]he only dimensions that seem to be representative of the whole range of emotional phenomena are evaluation and activation. But there is also reason to believe that the latter dimension is not unitary or fundamental .... Thus we come back again to the most widely recognized and accepted dimension of emotion, namely, the evaluative (positive-negative) dimension. What is the meaning of this dimension? Is it unitary? Or can it too, be broken down into components? (p. 21)

Furthermore, Averill (1980c) suggested that the experience of emotion represents a dynamic whole (i.e., a syndrome or multicomponent process) and that multiple criteria should be used to judge an emotion as either positive or negative. Specifically, four criteria were proposed:

> It requires only a moment's reflection to realize that an emotion may be regarded as positive or negative for any of four reasons: (1) the emotion is accompanied by a feeling state that is either pleasant or unpleasant; (2) the object of the emotion is appraised as either good or bad; (3) the behavior displayed during the emotion is regarded favorably or unfavorably; and (4) the consequences of the emotion are either beneficial or harmful. (p. 21)

This observation clearly indicates that *valence* is not simply a function of the positivity or negativity of an emotion term. It transcends its semantic meaning and its perception involves various behavioral, attributional, and attitudinal considerations.

One major controversy that has emerged among proponents of dimensional or structural studies of affect is whether the *valence* dimension is bipolar (Feldman, Barrett, & Russell, 1998; Green, Goldman, & Salovey, 1993; Russell & Carroll, 1999a, b) or whether positive and negative feelings can be thought of as distinct (Watson & Clark, 1997; Watson, Clark, & Tellegen, 1988; Watson & Tellegen, 1999; Zevon & Tellegen, 1982). For quite some time, the bipolarity of affect was widely and traditionally presumed and not questioned (see Green, Goldman, & Salovey, 1993; Moore & Isen, 1990). In accordance with this perspective, one could not be both happy and sad or both tense and relaxed at the same time (Russell & Carroll, 1999a). Nevertheless, results of some early factorial studies suggested that this assumption may not be correct (e.g., Borgatta, 1961; Bradburn, 1969; Nowlis & Nowlis, 1956; Thayer, 1967). Specifically, these studies generally pointed to the existence of two rather weakly correlated unipolar factors rather than a single bipolar valence dimension. It was also generally presumed that bipolarity appeared only when bipolar rating scales were used as opposed to single-adjective rating scales. Accordingly, it was argued that the use of bipolar response formats forced factorial solutions to appear bipolar (e.g., Green & Goldfried, 1965).

Subsequent work on the structure of affect by Clark, Watson, Tellegen, and colleagues has also pointed to the possibility that positive and negative mood states are essentially independent or that they do not lie at opposite ends of a single valence dimension (e.g., Watson, 1988a, b; Watson & Tellegen, 1985; Watson, Clark, & Tellegen, 1984, 1988; Zevon & Tellegen, 1982). For instance, Zevon and Tellegen (1982) collected longitudinal mood data over a three month period from 23 subjects. Factor analyses performed on data

from each subject and all subjects suggested a two-dimensional structure of positive and negative affect. Moreover, the dimensions were found to be unipolar. In accordance with earlier findings which deviated from those which suggested bipolarity, Watson and Clark (1997) recently stated that a widely accepted psychometric principle holds that "oppositely valenced affects tend to only be weakly negatively correlated with one another" (p. 282). This position, which has stressed the independence of positive and negative affects, was reinforced by Cacioppo and Berntson (1994). In their review of the literature on self-reported emotional experience, they indicated that positive and negative affects are likely to involve different neurological processes. In the area of marketing, the unipolar perspective is apparent in Edell and Burke (1987) who factor analyzed 69 emotion words which represented emotional reactions to advertisements. Three factors were extracted: (a) *upbeat or positive feelings*, (b) *negative feelings*, and (c) *warm feelings*. Clearly, these dimensions reflect independence of positive and negative affect. The three factors reported in Edell and Burke (1987) display some correspondence to the dimensions in Watson and Tellegen's (1985) circumplex.

Rather obvious reasons for discrepant unipolar and bipolar findings across factorial studies of affect are: (a) variations in the descriptors (i.e., adjective lists) provided to subjects, (b) variations in factor rotations and in factor labeling after rotation, and (c) bipolar and unipolar response formats (Larsen & Diener, 1992; Warr, Barter, & Brownbridge, 1983; Watson, 1988b; Watson & Tellegen, 1985; Watson & Tellegen, 1999). Less obvious reasons are discussed in Russell and Carroll (1999a, b) who have vehemently argued that affect is indeed bipolar (see Watson & Tellegen, 1999 for a response to Russell & Carroll, 1999a). Russell and Carroll (1999a) have suggested that results in studies which point to the existence of two unipolar dimensions may be due to various random and systematic (or non-random) sources of measurement error. The latter were said to include an acquiescent response style which "refers to an individual difference in the tendency to agree or disagree with an item regardless of its content" (p. 4). A detailed account of potential sources of measurement error as an explanation for divergent findings on the polarity of affect appears in Green, Goldman, and Salovey (1993).

Another potential cause for the masking of bipolarity in studies may involve *time*. Specifically, Russell and Carroll (1999a) point to different findings in longitudinal and cross-sectional research designs. It has been suggested that studies in which measures of momentary affect were used, tended to report results that were more consistent with a bipolar perspective whereas studies which employed measures over more extended periods of time tended to indicate that affective states were unipolar and tended to vary independently (e.g., Bradburn, 1969; Diener & Emmons, 1984; Diener, Larsen, Levine, & Emmons, 1985; Diener & Iran-Nejad, 1986; Wessman & Ricks, 1966). Accordingly, Diener et al. (1985) state that "[i]t is important to note the difference between research that focuses on momentary affect and research in which the longer-term structure of affect [of] persons is examined" (p. 1253).

Longitudinal studies of affect have tended to be investigations of subjective well-being (see Diener, 1984). Bradburn's (1969) longitudinal study of subjective well-being was among the first to have produced findings which indicated that positive and negative affect, when measured separately, were independent or that the amount of positive affect was not substantially correlated with the amount of negative affect that was experienced by a person. Diener and Emmons (1984) replicated Bradburn's (1969) results with a variety of measures so as to bypass the criticisms that were directed at the measures used by Bradburn (1969) (see Brenner, 1975; Kozma & Stones, 1980). Essentially, they collected data on daily affect and found that when variation was considered over long periods of time, negative and positive affect were independent across individuals. On the other hand, when Bradburn's (1969) dichotomous measures were converted to frequency measures of felt affect, Warr, Barter, and Brownbridge (1983) reported that the two categories of affect were negatively correlated. These and other findings (e.g., Diener & Emmons, 1984; Gotlib & Meyer, 1986; Kammann, Barter, Irwin, & Dixon, 1979) suggest that positive and negative affect are mutually exclusive or the more time one spends feeling positive affect, the less time one has to experience negative affect. In other words, positive and negative feelings do not occur simultaneously over time especially when relatively intense feelings are experienced (see Diener & Emmons, 1984). These findings rejoin those of studies in which momentary affect was studied and which have pointed to bipolarity (e.g., Russell, 1979, 1980). The *frequency*

with which affect occurs over time therefore appears as another important dimension of affect.

Another reason for disparate findings on the polarity of affect may be variations in the *intensity* or strength of the experienced affects (Diener & Emmons, 1984; Diener et al., 1985). Affect intensity has been presented as an individual difference variable (Diener et al.,1985; Larsen & Diener, 1987). In one longitudinal study, Epstein (1983a) uncovered a significant positive correlation of .58 between positive and negative emotional intensity after averaging intensity ratings across 14 positive and across 14 negative emotions. Accordingly, Diener et al. (1985) suggest that *intensity* therefore emerges as yet another dimension of experienced affect and appears to provide additional explanatory power for the disparity of findings on the polarity of affect. Diener et al (1985) go on to say that:

> how can positive and negative affect vary independently if the two must vary inversely in terms of frequency? The answer we propose is that positive and negative affect covary together on an intensity dimension; that is, a person who experiences strong positive emotions may also be a person who feels strong negative emotions as well .... If the intensity and frequency dimensions are relatively independent across persons, a great deal of confusion can be resolved. Specifically, both a strong positive correlation between the intensity of positive and negative affect and a strong negative correlation between the frequency of positive and negative affect would tend to cancel each other out over time. In other words, the negative correlation of the two types of affect in terms of frequency is balanced by the positive correlation for intensity. The result is that overall mean levels of the two types of affect will tend to be uncorrelated, because mean levels of affect result from the independent contributions of frequency and intensity. (p. 1255)

Finally, Russell and Carroll (1999a) propose that a third essential consideration in resolving the controversy between unipolar and bipolar perspectives is the multidimensionality of affect. They state that:

> the issue of bipolarity must be distinguished from the issue of independence. The question of the bipolarity of any one dimension is not equivalent to the question of how many independent dimensions (or components) are required to describe affect .... Still, the questions are closely related and easily confused. Two variables that are bipolar opposites are the whole of or parts of one dimension; two variables that are independent or even separable are two dimensions. The multidimensionality of affect thus opens the door to substantive confounds. If bipolarity is taken as predicting one dimension where independence predicts two, then evidence of two or more substantive dimensions in the domain of affect could conceivably be mistaken for

> evidence against bipolarity .... Noting at least two dimensions of affect, Green et al. (1993) argued that Watson et al.'s (1988) scales of PA [Positive Affect] and NA [Negative Affect] both contained a component of arousal, and it is this shared substantive component that accounts for their correlation being shifted in a positive direction. Tellegen et al. (1994) countered that Green et al.'s bipolar model was unidimensional and was thus contradicted by evidence of the multidimensional nature of affect. (p. 5)

Another perspective on affect in which valence and arousal dimensions are most likely confounded is that of Thayer (1967, 1970, 1978a, b, 1989) who, like Russell, has made consistent use of self-report data in his dimensional investigations of arousal. Thayer (1967) devised the AD-ACL or *Activation Deactivation Adjective Check List* with which arousal-related adjectives are rated on a four point scale according to how the subject is feeling at the moment the test is taken. At first, Thayer (1967) concluded that there were four monopolar *arousal* or *activation* factors. They are presented here with high loading adjectives in parentheses: (a) *general activation* (lively, active, full of pep, energetic, peppy, vigorous, activated); (b) *deactivation-sleep* (sleepy, tired, drowsy); (c) *high activation* (clutched up, jittery, stirred up, fearful, intense); and (d) *general deactivation* (at rest, still, leisurely, quiescent, quiet, calm, placid). In a subsequent study, Thayer (1970) related the four factors to physiological arousal. Skin conductance, heart rate, and two other indicators were recorded while the subjects were sitting quietly or while they performed a mental arithmetic task in the presence of noise. The subjects completed the AD-ACL at the end of each experimental phase. None of the correlations among the physiological variables exceeded .15. On the other hand, a composite measure based on the four measures correlated at a level of .47 with the general activation factor of the AD-ACL and at a level of .34 with the high activation factor. This clearly pointed to some advantages of self-report measures of arousal over physiological measures.

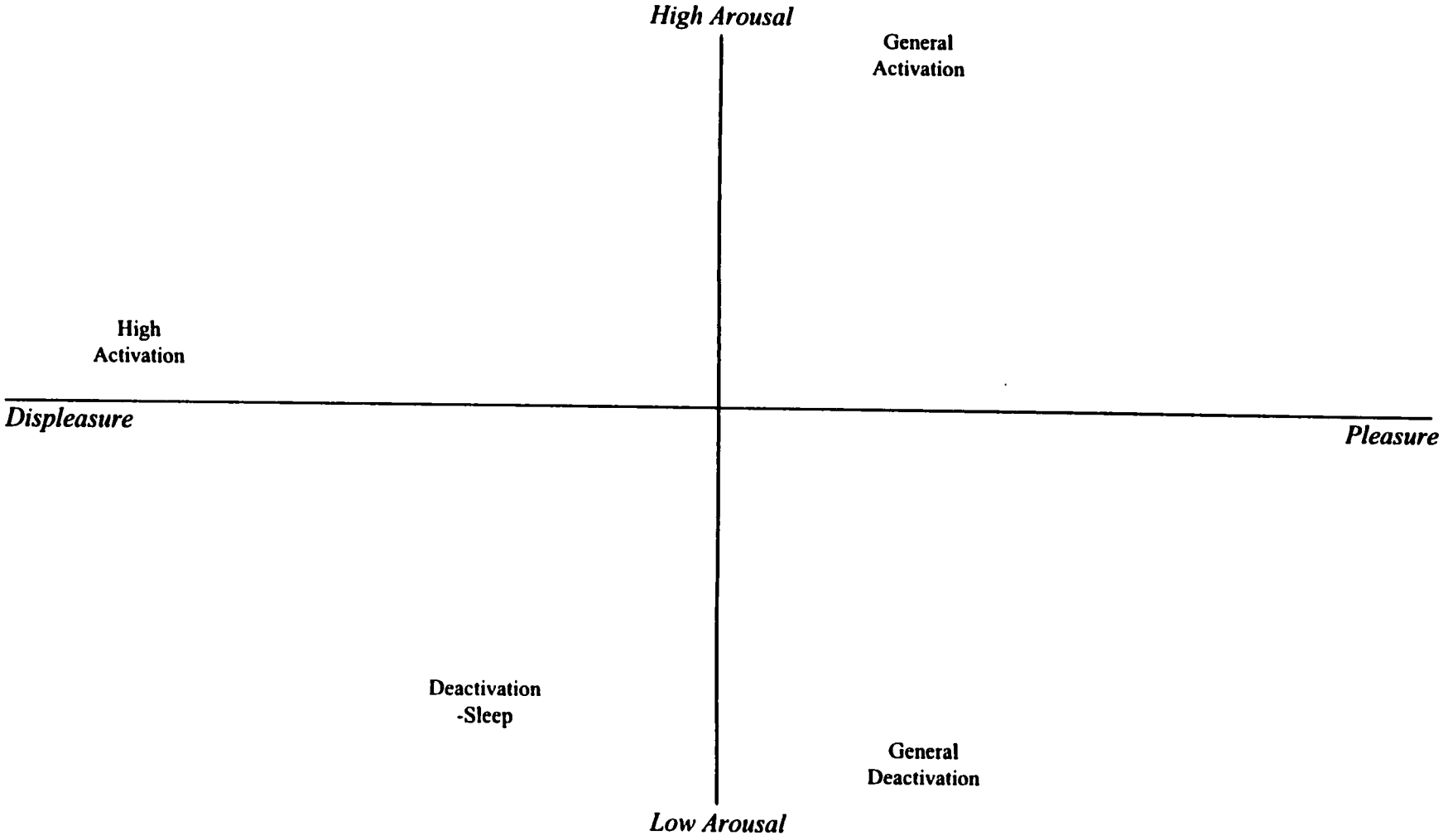
Some have disputed Thayer's claims as to the structure of arousal. For instance, Mackay, Cox, Burrows, and Lazzerini (1978) reported two bipolar factors when they used the AD-ACL rather than the four monopolar factors found by Thayer (1967, 1970). Mackay et al. (1978) labeled these factors *arousal* and *stress*. The *arousal* factor seemed to encompass Thayer's *general activation* and *deactivation-sleep* factors while the *stress* factor

seemed to summarize or underlie Thayer's *high activation* and *general deactivation* factors. That same year, Thayer (1978a, b) arrived at similar conclusions. Accordingly, he now distinguished between *activation dimension A* and *activation dimension B*. The former ranged from energetic and vigorous to sleepy and tired. The latter ranged from tense to placid and still. The four original unipolar dimensions were thus collapsed into two bipolar dimensions. Russell (1987) suggested that by doing so, Thayer aligned himself with the superior two-dimensional circumplex model suggested by Russell (1979, 1980). Moreover, Russell (1987) implied that the differences between his and Thayer's model were partly a question of different labels used to identify the two respective dimensions proposed in each model.

An alternate conceptualization of Thayer's arousal factors was offered by Russell (1979). This study began with an investigation of the factor analytic data used in Russell and Mehrabian (1977) where it was reported that emotions could be properly described along the three dimensions usually suggested by Russell and his colleagues: (a) *pleasure-displeasure* (valence), (b) *degree of arousal*, and (c) *dominance-submissiveness*. Russell's (1979) subjects completed the AD-ACL along with several other scales designed to measure *pleasure, displeasure, arousal, sleepiness, dominance, submissiveness,* and *depression*. Russell (1979) found that Thayer's (1967) four initial factors were related to the two-dimensional circumplex space in the manner depicted in Figure 6. One implication of these findings is that there may not be a number of arousal dimensions. In other words, Thayer's arousal factors may simply reflect different positions or locations on Russell's bipolar *pleasure-displeasure* dimension in combination with variations on a single bipolar *arousal* dimension. In this perspective, Thayer's dimensions are confounded with those proposed by Russell (1979, 1980). Specifically, when one examines the item content of Thayer's *high activation* dimension (i.e., clutched up, jittery, stirred up, fearful, intense) and that of his *general deactivation* dimension (i.e., at rest, still, leisurely, quiescent, quiet, calm, placid), it becomes quite evident that they also convey *pleasure* and *displeasure*. The *high activation* dimension apparently captures a form of unpleasant arousal whereas the other conveys a pleasurable form of arousal (Russell & Mehrabian, 1977).

Figure 6

The Location of Thayer's Arousal Factors within Russell's (1979) Two-Dimensional Space



Source: Russell (1979)

More recently, Thayer (1989) has defined arousal as "a kind of simultaneous activation of many physiological and psychological systems in response to a variety of kinds of stimulation" (p. 31). He adds that: "I refer to arousal as biopsychological - a concept with biological underpinnings" (p. 66) and that its clearest interpretation is at a psychological level. He further proposes that arousal is made up of two dimensions which he has renamed *tense* and *energetic* arousal. The former is said to be associated to "the presence or absence of danger or emergency reactions" (p. 61). The latter is said to be related to "alertness and readiness for action, and conversely, to fatigue and tiredness" (p. 61). Thayer (1989) further suggests that moods "are natural manifestations of these general bodily reactions" associated with arousal (p. 31). The two renamed dimensions, like the previous four-dimensional formulation, still seem to be confounded with pleasure-displeasure as postulated by Russell (1979). Moreover, Russell's concept of arousal is questioned in Thayer (1989). He states that:

> [f]or example, is it too simplistic to assume a dimension bounded on one side by subjective energy and on the other by tiredness? Instead, is it possible that there are different kinds of subjective energy, such as mental energy and physical energy? The same kind of distinction might also be made for various states of anxiety or tension, and for states of calmness. (p. 61)

A close formulation to that of Russell's (1979) unidimensional concept of arousal is that proposed in Watson and Tellegen (1985). Their model was discussed and presented above (see Figure 5). With respect to this model, Thayer (1989, p. 164) states that:

> [t]he dimensions that Watson and Tellegen (1985) have labeled as Positive and Negative Affect substantially overlap energetic and tense arousal as I have been discussing these mood dimensions. Therefore if one views Watson and Tellegen's interpretation as valid, it would appear that pleasantness-unpleasantness is correlated but not identical, with energetic and tense arousal. But this conclusion is tentative, however, because dimension labels (e.g., Pleasantness) are somewhat arbitrary. (p. 164)

Finally, Thayer (1989) has addressed the question regarding the existence of a potentially separate pleasure dimension:

> After surveying all this evidence, one is left with the question as to whether pure pleasantness is separate from arousal-produced positive affect. At the present time, I am uncertain. Variations in energetic and tense arousal account for many aspects

> of mood, and on the basis of parsimony I must tentatively conclude that there is not a separate pleasure dimension. However, the physiological and biochemical evidence about particular processes and anatomical loci of the brain that may mediate pleasure suggests that a separate pleasure dimension of mood may exist. Also, there are factor analytically defined dimensions that may be pure reflections of pleasure, further adding to the uncertainty. Finally, the research of Isen suggests that arousal elements of mood may not be identical with the pleasure elements of mood. But none of this evidence is conclusive. (p. 165)

4.1.2 Categorical Approaches to the Classification of Emotions

The generality and parsimony of two or three dimensions of emotion has traditionally been challenged by those who have argued in favor of categorical classification or the development of typologies based on discrete emotional states (e.g., Ekman, 1982, 1992a, 1994; Izard, 1972, 1977, 1992, 1994; Plutchik, 1980a, b, c; Shaver et al., 1987, 1992; Storm & Storm, 1987). Some have thus argued that the number of dimensions typically proposed in dimensional studies (2 or 3) was insufficient to fully account for emotions as syndromes with distinct characteristic features (e.g., particular combinations of antecedent appraisals, distinct ANS signatures, distinct facial expressions, etc.). For instance, Smith and Ellsworth (1985) manifested discontent with the parsimony and economy achieved by dimensional approaches to emotion such as that of Russell (1979, 1980) and suggested that additional appraisal-type dimensions (e.g., certainty, agency, etc.) could further delineate among discrete positive and negative affective states (see also Ellsworth & Smith, 1988a, b). In a like vein, constructivist (see Averill, 1980a, b, c, 1982; Hochschild, 1979, 1983a) as well as purist sociological (see Kemper, 1991, 1993) accounts of emotion typically hold that contextual considerations (i.e., interpretations of the social context) contribute to the occurrence of emotion. Averill's (1982) account of anger represents an excellent source for examples of social context considerations in emotional phenomena.

Overall, the many studies which have taken a categorical approach to emotion and that have tried to show differences among emotions clearly point to the notion that each basic emotion constitutes a distinct multicomponent process (Scherer, 1984a, 1988a) or unitary complex (Izard, 1972). Various investigations have therefore focused on differences in expression, bodily change, and thought and feeling content between discrete emotional states

(Lazarus, 1991a; Mano, 1991; Roseman, Wiest, & Swartz, 1994). Other studies of the phenomenological variety have proposed different emotional patterns through detailed investigations of particular emotional states (Averill, 1982; Harré, 1986). Still others have investigated the semantics of emotion (e.g., Averill, 1975; Ortony et al., 1987; Storm & Storm, 1987). As in Figure 1, many of these attempts have resulted in the categorization of emotion words in hierarchies which have tended to be based on similarity within classes of terms.

Generally, categorical approaches are not only closely related to the notion of *basic emotions* but are also (a) typically driven by a particular theory of emotion and (b) represent a classical view on the domain of emotion concepts (see Kövecses, 1990). Specifically, Russell and Fehr (1994) state that:

> [i]n the classical view, the domain of emotion concepts forms a class-inclusion hierarchy: Emotion includes anger, which includes rage, annoyance, and all other subcategories of anger. Features defining the superordinate concept of emotion are a proper subset of the features defining basic emotions; features defining each basic emotion are a proper subset of the features defining any subordinate category .... The classical approach to emotion concepts has recently been vigorously renewed and explicitly defended (Clore & Ortony, 1991; Johnson-Laird & Oatley, 1989; Oatley & Johnson-Laird, 1992; Parrott, 1992). Lazarus (1991[b]) recently wrote of the essence of anger and other basic emotions and sought to state their defining features. Even more important, the classical assumptions are often held implicitly .... Theoretical treatments of emotion often assume that emotion concepts are organized in a true hierarchy. For example the category of emotion is often divided into seven (plus or minus two) 'basic emotions' (Ekman, 1984; Izard 1971; Johnson-Laird & Oatley, 1989; Tomkins, 1962-1963). The number of emotion-related terms in the English language has been estimated between 500 to 2,000 (Averill, 1975; Wallace & Carson, 1973). The assumption is that all such terms have their place as subcategories of the basic emotions. (pp. 186-7)

A related problem rests in that there is little agreement among authors regarding the number and nature of basic emotions. Ortony and Turner (1990) point out that the numbers of basic emotions that have been suggested by researchers have displayed much variation. Specifically, they found that these sets can vary in number from 2 to 18 depending on the theorist one reads. For instance, Ekman and his colleagues have suggested six basic emotions whereas Izard (1972) argued for nine basic emotions and later (1977) suggested the existence

of ten fundamental emotions. The examination of distinct facial muscle movement patterns during expression has led some researchers to conclude that *pleasure/enjoyment, sadness, fear, anger, disgust, surprise,* and perhaps *contempt, interest, guilt, embarrassment, shame,* and *awe* appeared as differentiated, recognizable, universal, and therefore represented basic discrete emotions (see Darwin, 1872; Ekman & Friesen, 1975; Ekman, 1982; Ekman, 1992b; Izard, 1971). Some studies have been based on the factor analysis of self-report ratings of emotion and have revealed six or more unipolar factors that correspond to specific emotional states such as anger, sadness, etc. (e.g., Borgatta, 1961; Izard, 1972; Nowlis, 1965). Again, little agreement appears across studies. Moreover, Izard (1977) along with Ekman and Friesen (1975) have categorized basic emotions as either *positive* or *negative*. However, there is also disagreement with respect to what is a positive or negative emotion. Izard (1977) suggested that only *interest* and *joy* were *positive* emotions whereas others were categorized as *negative*. On the other hand, Ekman and Friesen (1975) identified only *happiness* as *positive* and the other five (i.e., *anger, disgust, fear, sadness,* and *surprise*) were labeled *negative basic emotions*. Furthermore, Mandler (1992) questioned whether *interest* and *surprise* are distinct basic emotions and whether *surprise* can even be categorized as an emotion.

Apart from the multiple methodological issues that surround Ekman's and Izard's experiments (see Russell, 1993, 1994; Scherer, 1992), many other problems have been identified with discrete categories of emotion. For instance, the reported recognition rates of so-called *basic emotions* have tended to be below that which is expected given the precepts of Darwinian theory which holds that these expressions are evolved and therefore spontaneous and are useless unless an evolved recognition mechanism is also transmitted phylogenetically (Buck, 1988a). On the other hand, Ortony and Turner (1990) vehemently argued that even more primitive forms underlie basic facial expressions and that these elements correspond to antecedent appraisals (i.e., pleasantness, certainty, etc.) rather than to basic emotions. In a like vein, Ellsworth (1991) pointed out that close examinations of prototypical examples of expressions of basic emotions such as those used by Ekman and Friesen (1975) and Izard (1977) indicate skeleto-muscular variations within an emotion

category and that some elements of expression are common among "different" basic emotions. Ellsworth (1991) suggested that an alternate explanation to the typical one proposed by Ekman and Izard is that particular combinations of appraisals underlie particular facial expressions (see also Smith, 1989; Smith & Ellsworth, 1985).

Similarly, Scherer (1986) linked speech parameters (indicators of emotions) to antecedent appraisals. Elsewhere, Scherer (1992) suggests that"[c]ognition researchers seem to have been largely convinced that mental processes are best studied by relying on verbal behaviour ... or on methods borrowed from psychophysics or neurophysiology" (p. 144). However, he argued that some facial expressions may be expressions of thought or of cognitive processes (information processing) and that this theme was recurrent in German "expression psychology" or Ausdruckpsychologie. Accordingly, he stated: "facial expressions may simultaneously express cognition and emotion" (p. 149). In particular, Scherer (1992) referred to the studies reported in Schänzle (1939) who attempted to identify the indicators of the following cognitive operations: (a) "thinking as reflection (ideas, evaluation, 'being affected')", (b) "thinking as coping (superior, rational, derogative attitudes)", (c) "thinking as movement (goal-directed problem solving, mental review/search/restlessness/turning away, persevering and associative thought processes, free and constrained thought processes)", and (d) "thinking as success or failure" (Scherer, 1992, p. 143).

Additionally, some subjective emotional experiences such as *pride, frustration, love, jealousy,* and *pity* do not fit into any of the basic or fundamental categories (Ellsworth, 1991; Mandler, 1992). In response, Ekman (1984) has denied that these affective states are even emotions. Others have provided explanations based on varieties of palette theories of emotions and have suggested that these states represent blends of more basic or primary emotions. For instance, Plutchik (1984) proposed that *love* was a combination of *joy* and *acceptance*. Ellsworth (1991) argues that blend theories may be satisfactory on a metaphorical level but are insufficient to explain what goes on at the neurophysiological level: "Are both neural programs firing simultaneously at partial strength? A similar problem arises with transitions between emotions, particularly gradual transitions" (pp. 146-7).

Furthermore, proponents of basic emotions have engaged in various attempts at demonstrating that each basic emotion involves a distinct pattern in terms of ANS activity (e.g., Levenson, 1992). Overall, these attempts have yielded mixed results (Cacioppo, Berntson, & Klein, 1992; Thompson, 1988). Accordingly, Zajonc (1998) has suggested that the evidence with respect to the existence of discrete basic emotions is rather faint:

> there is no consensus on whether emotions are a set of discrete categories or continuous distributions of a multidimensional nature. If they are discrete categories, then we need to find "signatures" for each of the emotion categories, be they six, three, or eight. The correlation among ANS measures, subjective reports, facial expressions, etc. are seldom higher than 0.2 (Ellsworth, 1995; Rimé, Philippot, & Cisamolo, 1990; Tassinary, Cacioppo, & Green, 1989) and generally, physiological measures fail to discriminate reliably among the emotions (Zajonc & McIntosh, 1992). (p. 612)

Another but yet related class of categorical perspectives on emotion is the prototypical. Prototypical studies typically seek to organize emotion knowledge in hierarchical levels or in accordance to the way other forms of knowledge are categorized in human information processing. Prototypes "serve as a template for understanding and generating one's own emotion behavior as well as for making inferences about the motivations and feelings of others during social interactions" (Metts & Bowers, 1994, p. 514). Prototypical approaches can involve categorizations based on language (semantics) or experience. The prototypical approach is perhaps best exemplified by the work of Schwartz and Shaver (e.g., Fischer, Shaver, & Carnochan, 1990; Shaver, Schwartz, Kirson, & O'Connor, 1987; Shaver, Wu, & Schwartz, 1992). For instance, Fischer et al. (1990) defined emotion as a "discrete, innate, functional, biosocial action and expression system" (p. 84) and said to be determined by three distinct categorical components. First, the highest layer or *superordinate category* involves a functional appraisal of events as either advancing or hindering the organism's explicit or implicit goals. Two superordinate categories are presented - one positive and one negative. ***Basic components*** represent the next layer and categorize emotion under five broad levels. For instance, *love* and *joy* are basic components which are also positive emotions in terms of the wider superordinate category because they are presumed to lead to goal advancement. On the other hand, *anger*, *sadness*, and *fear* are

basic components which are also negative emotions (i.e., superordinate category) for they are presumed to lead to goal hindrance. Each basic component is expressed via a *subordinate component* described as a *prototypical script* which, in turn, are said to include sets of predetermined behavioral responses used to express emotions in particular circumstances. The subordinate components of the positive basic component *love* include *fondness* and *infatuation*, those of *joy* are *bliss*, *contentment*, and *pride*. On the other hand, those of the negative basic component *anger* are *annoyance*, *hostility*, *contempt*, and *jealousy*; those of *sadness* are *agony*, *grief*, *guilt*, and *loneliness*; and those of *fear* include *horror* and *worry*. Fischer et al. (1990) note that there are many possible scripts. For instance, *grief* may be appropriate during a funeral but less so during a celebration. Similarly, *joy* may be appropriate for celebratory circumstances but less so in others. Prototypical approaches to emotion imply that "prototypical situations serve as antecedents of different emotions" (Scherer & Ceschi, 1997, p. 211). Prototypes represent *episodic schema* (Metts & Bowers, 1994). This is particularly evident in Fischer et al. (1990) where particular scripts are associated to particular situations. Emotion scripts are discussed in detail in Fischer (1991).

Because of its focus on episodic components, Plutchik's (1980a, b, c, 1984) perspective on emotion can also be classified as prototypical. For instance, Plutchik (1984) discusses *prototypical survival sequences*. Each sequence involves a stimulus-event (e.g., threat), an inferred cognition (danger), a feeling (fear), a behavior (running away), and an effect (protection). More generally, Plutchik (1980a, b, c, 1984) suggested that emotions have evolved and are thus functional indicating an inclination toward a Darwinian perspective. Furthermore, Plutchik (1980a, b, c) proposed that discrete emotions can be ordered into a coherent set according to their *intensity* (e.g., rage is more intense than anger), *similarity* (e.g., shame and guilt are more similar than anger and joy), and *polarity* (e.g., joy is the opposite of sadness/sorrow). Plutchik (1984) also argued that some emotions are basic or fundamental and that "others are derived or secondary, in the same sense that some colors

are primary and others are mixed[46]" (p. 200). The eight basic emotions Plutchik (1980c) identified were: *joy/ecstasy, fear/terror, anger/rage, sadness/grief, acceptance/trust, disgust/loathing, expectancy/anticipation,* and *surprise/astonishment.* Each basic emotion is associated to a basic function. For instance, the basic emotion *fear* is associated to the protection function whereas the basic emotion *disgust* involves rejection. A clear Darwinian perspective underlies Plutchik's categorization.

In summarizing the various aspects of his psychoevolutionary theory of emotion, Plutchik (1980c) proposed that relations among emotions can be represented by a conical structure:

> It is evident that emotions vary in intensity (e.g., fear vs. panic) [represented by the vertical dimension], in similarity (shame and guilt are more similar than love and disgust) [represented by circles], and in polarity (joy is the opposite of sadness). These characteristics of intensity, similarity, and polarity may be represented geometrically by means of a three-dimensional structure shaped like a cone .... In addition, the cone can be considered to be made up of eight sectors or slices, each of which represents a basic or primary emotion. (p. 7)

The model proposed by Plutchik (1958, 1980a, b, c, 1984, 1994, 1995, 1997) somewhat resembles the circumplex proposed in Russell (1979, 1980). Specifically, Russell's concept of *level of arousal* is similar to what Plutchik calls *intensity* and what Russell refers to as *valence* is analogous to what Plutchik calls *polarity.*

A variety of categorization attempts have been based on the semantics or language of emotion. Underlying many of these attempts, is the notion that language provides the

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[46] Others have held similar views. In particular, Ekman and Friesen (1975), Tomkins (1963), as well as Oatley & Johnson-Laird (1987) have suggested that non-basic emotions are combinations, blends, or mixes of basic emotions. This view is also apparent in Plutchik's earlier work (see Plutchik, 1962). Scherer (1984a) has referred to this type of categorization as *palette theory.* On the other hand, some have found that categorizations based on some set of basic emotions were rather trivial in terms of explaining other non-basic emotions (e.g., Ortony & Turner, 1990). Similarly, Zajonc (1998) suggests that: "in all probability, emotion terms are not amenable to a systematic analysis found useful for color terms" (p. 608). Accordingly, Fridja et al. (1989) empirically demonstrated that the more complex emotions such as *jealousy, regret,* and *disappointment* were not "cognitively complex specifications of particular basic ones" (p. 225) in that they involved mostly no action-readiness patterns whereas the more "basic" emotions tended to be determined by specific patterns of action-readiness.

forum by which one may establish meaningful categories of emotion[47] (Averill, 1975; Ortony et al., 1987; Storm & Storm, 1987). These attempts have typically aimed to provide exhaustive accounts of the entire spectrum of emotional experiences. An examination of the English language has revealed that affective states can involve as many as 2,186 labels (Bush, 1972, 1973). More typical compilations have involved from 500 to 600 terms (e.g., Averill, 1975; Johnson-Laird & Oatley, 1989). Some attempts at semantic categorization are clearly related to appraisal theory-based attempts at differentiating one emotion from another (Fridja et al., 1989; Wierzbicka, 1986). An example can be found in Johnson-Laird and Oatley (1989) who argue that:

> language and its underlying conceptual apparatus is intimately related to the real nature of emotions, and the meanings of emotional terms are neither arbitrary nor unanalyzable but do indeed relate to experience. (p. 85)

The proposed categorization is organized in hierarchies and is based on the notion that "emotion can be set up by a cognitive evaluation" (p. 85). Moreover, it is suggested that this evaluation directs processing "into one of a small number of emotional modes" (p. 85): *happiness, sadness, anger, fear,* and *disgust*. Out of these five fundamental modes, it is suggested that all subjective emotional experiences are constructed. Accordingly, Johnson-Laird and Oatley (1989) analyzed 590 emotion words in the English language and suggested the seven following semantic categories: (1) *generic emotions* (e.g., emotions and feelings), (2) *basic emotions* (e.g., happiness), (3) *emotional relations* (e.g., love and hate), (4) *caused emotions* (e.g., gladness and horror), (5) *causatives* (e.g., reassure), (6) *emotional goals* (e.g., desire and avarice), and (7) *complex emotions* (e.g., embarrassment). The term *basic emotions* was apparently not used here in the same sense as for instance in Ekman (1992b, c). Rather, it was taken to indicate emotions to which one cannot attribute a cause. On the other hand, the third category involved words which can be related to a cause. In this and other similar perspectives, proposed sets of basic or fundamental, discrete, and presumably discriminant emotional states are taken to account for the structure of emotion.

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[47] James (1890) had little faith in investigations of language and emotion labels. He doubted that categorizations based on language (i.e., semantic categories) could provide an understanding of emotion and lead to a coherent theory of emotion.

One striking element which emerges from examinations of the content of categorical sets of emotions is the overwhelming representation of negative basic emotions. Some examinations of the English-language affective lexicon have indicated that emotion words which had a negative connotation appeared more often than those with a positive connotation (e.g., Averill, 1980c) whereas positive non-emotion words or concepts appeared more frequently than their negative counterparts (e.g., Brown & Ure, 1969; Osgood et al., 1957). Accordingly, Averill's (1980c) review of data led him to the realization that "a preponderance of negative terms is unique to emotional concepts and is not characteristic of language in general" (p. 12). Averill (1980c) adds that: "the meaning of emotional concepts makes them less applicable to positive states" (p. 28). As a way to demonstrate this, he referred to two studies which showed that the attribution of emotion was a function of response outcomes:

> To summarize briefly, the research by Averill et al. (1978) and by Semin and Manstead (1977) illustrates different ways in which the attribution of emotion and/or the display of emotional upset may help to protect the individual from the negative consequences of his behavior. I do not wish to insinuate, however, that a deflection of responsibility for negative outcomes is the primary reason for becoming emotional. Obviously, positive outcomes can also be associated with emotional states, and we must also account for this fact. As discussed earlier, emotional concepts have a variety of connotations, any of which may contribute to a response being classified as passion rather than as an action. For example, a response that is regarded as uncharacteristic, irrational, intuitive, impulsive, etc., may also be interpreted as emotional, for attributes such as these imply a certain lack of personal control .... I am not contending that emotional concepts are inapplicable to positive states, only that their range of applicability is more limited in the case of positive as opposed to negative responses. And the attribution of positive and negative outcomes simply illustrates one of the limiting conditions. (pp. 27-28)

Finally, appraisal theories also represent attempts at categorizing/explaining discrete emotional states. However, unlike prototypical approaches, they are concerned with an individual's appraisal of an antecedent event. Specifically, combinations or patterns of values on a small number of continuous appraisal factors have been posited to result in discrete emotional states and to differentiate among emotional states (e.g., Lazarus, 1991a; Roseman, 1984, 1991; Weiner, 1985a, 1986). Values on a set of posited appraisal dimensions is typically taken to represent a particular cognitive structure (Scherer, 1992). It has been

argued that appraisal theories represent the dominant perspective in psychology and that they offer satisfactory accounts of how discrete emotions arise and of what differentiates one emotional state from another (Bagozzi et al., 1999).

However, some problems are clearly apparent in this perspective. For instance, there appears to be little consensus as to the number and type of appraisal dimensions that are required to determine a discrete emotional state (Scherer, 1988b). Moreover, appraisal theories have tended to account for a small number of rather more common and more simple discrete emotional states which clearly do not represent the entire spectrum of emotional experiences (Fridja et al., 1989; Storm & Storm, 1987). Furthermore, studies have tended to exclude the notion of *action readiness* in the process of emotion differentiation although states of action readiness have been proposed and discussed as one way to differentiate among emotions (see Davitz, 1969; Fridja, 1987; Fridja et al., 1989; Shaver et al., 1987; Scherer, 1984a). Fridja et al. (1989) clearly demonstrated that action tendencies do underlie the process of emotional differentiation in that subjects associated emotion labels with particular antecedent appraisals *and* states of action readiness.

Finally, many appraisal theorists have adopted a perspective on emotion which is basically functionalist (e.g., Lazarus, 1968) but have focused their attention almost entirely on antecedent appraisals without specifying how antecedent appraisals are linked to physiological and expressive activities in a wider emotion system or process (see Smith, 1989).

4.2 Measurement of Emotion

Emotion is a multicomponent process (Scherer, 1984a, 1988a). The concept *emotion* should be used to refer to an entire syndrome of differing components or features which include "cognitive processes, CNS and ANS activity or changes, expressive behavior, motivational aspects, action tendencies, and subjective feeling states" (Scherer, 1984a, p. 42). Indicators have been suggested for many components of emotion and corresponding measures have therefore been developed for each of these aspects. Öhman (1986) argues that after elicitation, primary emotions can be "indexed by measures of three systems - verbal reports, physiological responses, and overt motor behavior" (p. 125). He provides a

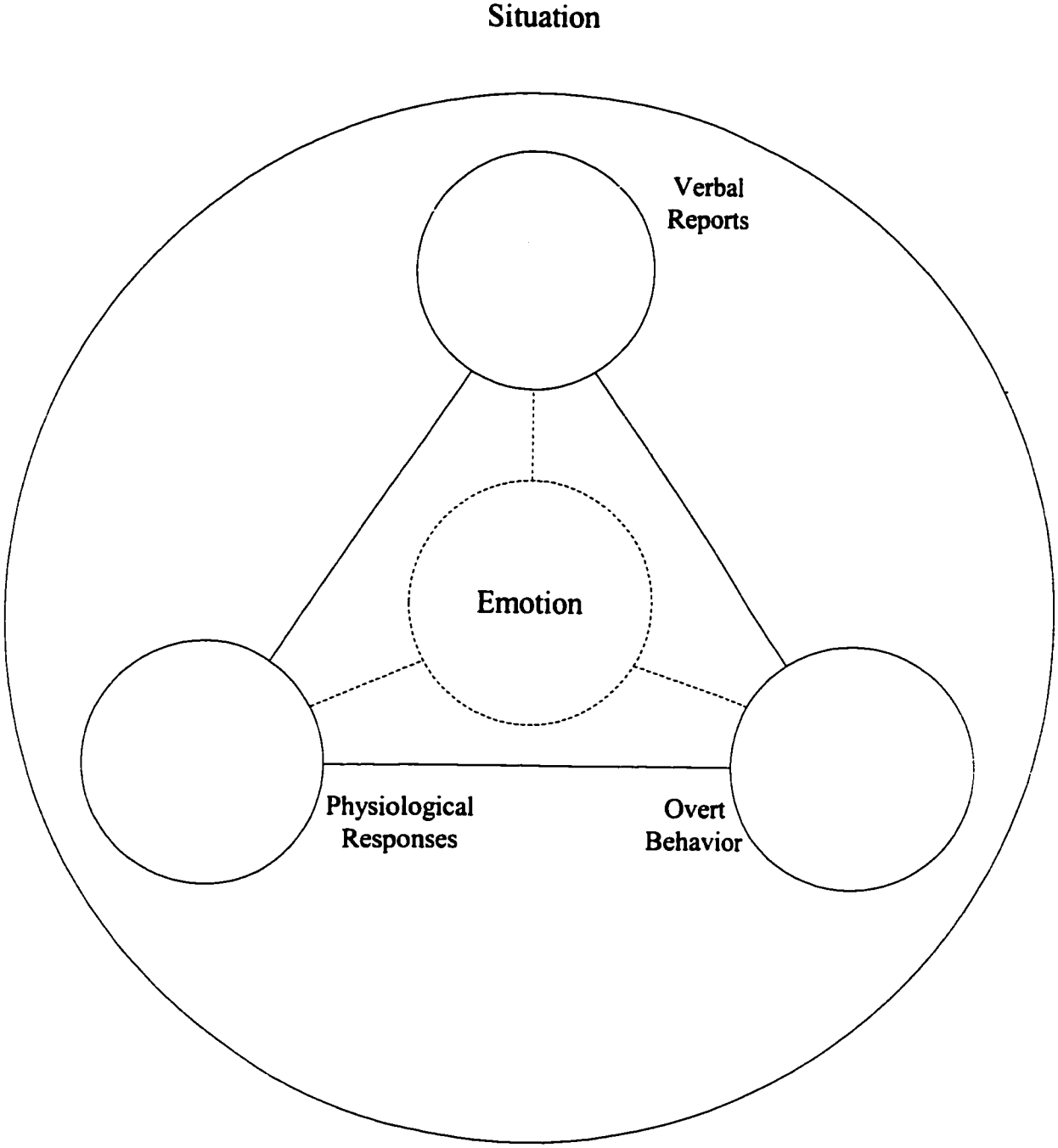
schematic representation of the three components. It is reproduced here as Figure 7. Öhman (1986) focuses on fear and states that: "[i]t is important to point out that fear is a construct which is inferred from these data .... Thus, it cannot be reduced to any particular measure. Fear, therefore, can be viewed as a flexibly organized ensemble of responses, which uses whatever environmental support is available to fulfill its biological function ..." (p. 125).

More generally, it has been suggested that the three measurable aspects of emotion are "not components of a coherent emotion construct and correlate only imperfectly" (Parrott & Hertel, 1999, p. 71). Accordingly, Leventhal and Scherer (1987) have conceptualized these aspects as separate response systems or levels of processing which are not closely related (see also Lang, 1988). With respect to Figure 7, Öhman (1986) states that: "[e]motions occur in particular situations and they are inferred from the three response systems .... None of the observed indices can be regarded as necessary or sufficient. Therefore, emotion has the conceptual status of a hypothetical construct" (p. 125).

The methods employed in psychological research on emotion are many and clearly reflect what aspect of emotion a researcher is interested in and his/her particular perspective on emotion. Self-reports appear as the method of choice for those investigating the effects of emotion-eliciting situations typically depicted in vignettes presented to subjects (e.g., Jacobs, Fischer, & Manstead, 1997; Smith & Ellsworth, 1987) and for those making use of mood induction techniques (e.g., Morrow & Nolen-Hoeksema, 1990). They are also used in the recall of past emotional experience or episodes (e.g., Biaggio, 1980; Ellsworth & Smith, 1988a, b; Roseman, Spindel, & Jose, 1990; Scherer, 1988a). Some have vehemently argued for the use of structured diaries in more naturalistic settings (see Averill, 1982; Malatesta-Magai & Coulter, 1991; Oatley & Duncan, 1992). Many studies have categorized *emotion words* on similarity ratings and have subsequently looked into how emotions are related (e.g., Mehrabian & Russell, 1974a, b; Plutchik, 1980a, b; Shaver, Wu, & Schwartz, 1992). A reliance on photographic stills (e.g., Ekman, 1994) and movie clips (e.g., Russell & Carroll, 1997) as stimuli is typical of studies of emotion recognition where ratings of facial displays (i.e., quality and intensity) as markers of emotion are commonly used (e.g., Ekman, Friesen, & Ancoli, 1980). Reliance on facial expressions as behavioral indicators of emotion also

Figure 7

A Schematic Representation of the Conceptual Structure of Emotion Which Appears Across Measurement Attempts



Source: Öhman (1986)

emerges in research where the presence of others or an imagined social context is controlled for (e.g., Fridlund, 1991a, b, 1992a, b). Discrete behaviors other than facial displays have also been associated with particular emotions (e.g., gaze aversion in episodes of embarrassment; see Asendorpf, 1990). Use of other forms of behavioral indicators of emotion such as psychomotor retardation during speed writing tasks (e.g., Clark, 1983) or letter cancellation tasks (e.g., Mayer & Bremer, 1985) is also apparent.

Alternatively, psychophysiological studies have relied on bodily indicators (autonomic responses) and skeleto-muscular changes (facial expressive responses) as markers of emotional experience and have thus made use of a wide array of apparatuses designed to measure changes in bodily functions or muscle movement. These instruments have included polygraph-based technologies (e.g., Levenson, Ekman, Heider, & Friesen, 1992) and facial electromyographic (EMG) equipment (e.g., Cacioppo & Tassinary, 1990; Dimberg, 1990a; Ekman, Levenson, & Friesen, 1983; Fridlund & Cacioppo, 1983; Pecchinenda & Smith, 1996). More recent psychoneurological attempts have relied on positron emission technology (PET) (e.g., Sutton, Ward, Larson, Holden, Perlman, & Davidson, 1997) or electroencephalographic (EEG) recordings of particular brain regions (e.g., Henriques & Davidson, 1991). Finally, less traditional attempts at assessing emotion have made use of cognitive indicators of emotional activity and have been based on inferences drawn from alterations in attention, judgment, or memory (e.g., Kuykendall, Keating, & Wagaman, 1988; Mayer & Bremer, 1985).

Emotional states involve aspects of which we are consciously aware and other concomitants which occur outside of conscious awareness (for a discussion, see Dimberg, 1990a; Ekman & Davidson, 1994; Öhman, 1999). Self-report emerges as the method of choice when the conscious aspects are to be assessed (Parrott & Hertel, 1999). Leventhal (1984) stresses the use of self-report methods and holds that the indicators of emotion are "verbal and instrumental responses, expressive responses, and autonomic responses" (p. 272). Furthermore, he suggests that emotion be viewed as an unobservable or latent construct (for a discussion of latent constructs, see Bollen, 1989) and that it should be clearly delineated from its observable indicators. Such a perspective clearly deviates from that of

William James where emotion was more or less equated to bodily changes. Leventhal (1984) adds that:

> [n]one of the three types of response is itself 'the emotion,' as 'the emotion' is an hypothetical construct. Emotion is an experience that is real but cannot be directly observed .... It is my judgment that verbal report and its related response methods (rating scales, checklists, etc.) is the best of the available indicators for the study of emotion in adult subjects. This is particularly true with at the early stage of the research enterprise. Verbal report is particularly suited for assessing the many facets of emotional and perceptual experience .... Its utility is even greater with the advent of procedures for the analysis of multidimensional data .... (p. 272)

Similarly, Scherer and Wallbott (1994) strongly advocate the use of self-report or questionnaire techniques in the area of emotion. They provide two arguments which justify their use in emotion research:

> (a) Rather than not studying emotion episodes in real life at all, it is preferable to have access to real, and often intimate, emotions through verbal report on recalled emotional emotion experiences in anonymous questionnaires (even though some of the reports might be biased). (b) Two important components of the total emotion process, cognitive appraisal of emotion-antecedent situations and subjective feeling state, are accessible only through self-report. (p. 312)

On the other hand, Plutchik (1980a) has proposed that the use and presumed importance of verbal self-reports of an inner emotional state (i.e., introspection) have long been questioned. For instance, some researchers have suggested that observers can sometimes more reliably determine the emotion that a subject feels than the subject him/herself (e.g., Hebb, 1946). Moreover, Leventhal (1984) points out that self-reports can be biased: "[a]s in the case with all behavioral indicators, those for emotion (verbal reports, expressive reactions, and autonomic responses) are responsive to environmental and organismic states in addition to that of emotion. Hence, each of the indicators of emotion is fraught with potential for bias ..." (p. 272). Bias and distortion can occur due to factors which include demand characteristics, social norms (e.g., social desirability), attention deficits with respect to emotional states during introspection, memory deficits during retrospection, and attributions (Barrett, 1996; Parkinson & Manstead, 1993; Smith & Lazarus, 1993).

Prior to embarking on a selective review of measures of emotion, it is interesting to note that the methods used in emotion research have in all likelihood impeded the

development of theory in the field and have consequently played a role in emotion being given a subordinate position to cognition in psychology (Isen & Hastorf, 1982). Accordingly, Cohen and Areni (1991) state that:

> [i]f reliance is placed on observational methods, the status of intervening variables is ambiguous at best. If reliance is placed on verbal reports, the limitations of the cognitive system in capturing and recording affective processes (e.g., of different types, intensities, and durations) produce an overly restrictive and potentially misleading account of such activity. While valid and reliable measurement has been a problem across a full range of the psychological spectrum, measurement and identification of affective states and processes has been particularly difficult, and this has doubtless discouraged many people from working in the area. Yet despite these formidable methodological obstacles, interest in affect is increasing in several areas of psychology as well as in consumer behavior" (p. 189).

4.2.1 Self-Report Measures of Felt Emotion

We provide here an overview of methods to measure experienced emotional states with an emphasis on self-report methodologies. Many published measures are available. The subjective experience of emotion has traditionally been assessed in two general ways. Both are of the self-report variety. Each is consistent with a dimensional or a categorical perspective on emotion. Both approaches involve advantages and disadvantages. The dimensional perspective attempts to assess the dominant dimensions of affect[48] and is perhaps best exemplified in Russell (1979, 1980) by his *circumplex model* of emotion. The model specifies two main bipolar dimensions of emotion, namely: *pleasure-displeasure* and *low arousal-high arousal.* Measures of each unrotated[49] dimension have been developed along with a component measure of the third dimension labeled *dominance* (see Mehrabian & Russell, 1974a, b). The ensuing PAD (Pleasure-Arousal-Dominance) instrument has been used extensively to assess descriptions of emotional experiences and is supposedly free of

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[48] The term *affect* is generally thought to subsume *emotion* and *mood*. However, the terms *affect* and *emotion* appear to be used interchangeably by Russell.

[49] As indicated above, Russell (1978, 1979, 1980) has proposed that the two dimensions of *pleasure-displeasure* and *arousal* underlie the affective space. He has also held that the *pleasure-displeasure* dimension is bipolar. Russell has consistently worked with unrotated dimensions. However, when the axes of the space were rotated, a different interpretation has usually emerged which has suggested that the primary dimension was not bipolar (see Russell & Carroll, 1999a, b; Watson, Clark, & Tellegen, 1988; Watson & Tellegen, 1999).

acquiescence bias (Mehrabian & Russell, 1974b). Moreover, during its development, psychometric assessments of the final 18-item form of the PAD indicated three underlying factors which accounted for 27% (pleasure), 23% (arousal), and 14% (dominance) of the total variance in the data. Furthermore, the three extracted factors displayed low levels of intercorrelation (Mehrabian & Russell, 1974b). This suggested that the factors were discriminant (distinct) of one another.

In general, not only is this dimensional approach parsimonious, it also affords researchers the luxury of knowing that whatever emotion has been displayed will be captured because all emotions can be described by combinations of the two dimensions of *pleasure* and *arousal* which form Russell's circumplex space (see Russell, 1979, 1980, 1997). Combined scores on each dimension could then tentatively be used as indicators of a particular category of emotion (e.g., happiness) or of a cluster of similar emotions which have been shown to occupy that area of the space. Russell's (1980) approach therefore provides specificity, scope, and clearly affords a fuzzy perspective on emotion categories whereby emotions are seen as systematically interrelated (Russell & Fehr, 1994). Russell (1997) discusses the measurement of emotion and holds that a proper approach to the assessment of emotion rests on six properties[50]:

> (1) A specific instance of an emotion is a member of a category indeed of many categories. (2) Membership in each emotion category is a matter of degree rather than all or none. (3) Emotion categories are related to each other as described by a circumplex. (4) Emotions fall along certain continua, such as intensity, degree of pleasure and displeasure (hedonic value), and amount of arousal. (5) Emotion categories are understood in terms of a script, which is a prototypical sequence of causally connected and temporally ordered constituents. (6) Emotions are embedded in a fuzzy hierarchy. Each of these properties (and others) has been offered as the way to describe emotions - hence controversies on categories versus dimensions, cluster analysis versus multidimensional scaling, and fuzzy categories versus the circumplex. Our instruments for assessing moods or self-reported emotions are based

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50 Russell (1997) refers to the notion of *category*. Categories of emotion are based on and include words such as *happiness, anger, fear, jealousy*, etc. Many labels/words for emotion categories are provided in the English language. The notion of *fuzzy concept* indicates overlap between categories of emotion which thus renders single word labels rather insufficient for the assessment of emotional states. It is also argued that emotion categories are best understood in terms of scripted and thus time-ordered sequences involving various components of emotion over the emotional episode.

> often on only one of these partial truths and thus fail to yield a full description. (pp. 207-208)

Many of the six properties described by Russell (1997) are captured by his dimensional approach. His comments clearly imply the inadequacies of a purely categorical approach to the measurement of emotion (e.g., exposing a subject to a stimuli and asking him/her to check the emotion s/he feels or recognizes in the stimuli on a list of emotion labels or to indicate its intensity on a scale associated to the emotion term) in that such approaches are clearly limited and unable to account for the entire range of the components involved in an emotion category such as *sadness* and for the fuzziness of emotion categories (i.e., systematic interrelations with other categories of emotion).

Nevertheless, the PAD (Mehrabian & Russell, 1974a, b) is also limited. Quite generally, it has been reported that different ways of scoring standardized measures can introduce various forms of bias (Green, Goldman, & Salovey, 1993). More specifically, Richins (1997) adds that:

> [t]he objective of this scale is quite different from that of measures based on emotion theory, both in terms of context and content. With respect to context, the PAD scale was designed not to capture the entire domain of emotional experience but rather to measure emotional responses to environmental stimuli such as architectural spaces. Although the scale may be suitable to assess consumers' responses to store environment, for instance, its validity in assessing emotional responses to the interpersonal aspects of shopping and consumption cannot be assumed. A difference in context between the PAD scale and the other measures is even greater than the difference in context. The PAD scale does not purport to emotions per se; instead, it assesses the perceived pleasure, arousal, and dominance elicited by a set of environmental stimuli .... One cannot unequivocally infer the existence of specific emotion states such as joy, guilt, anger, or fear from a person's PAD score. Thus the PAD is best used when a researcher is interested in measuring the dimensions underlying emotion states and does not need to know the specific emotions being experienced by study participants. (p. 128)

More recently, Russell, Weiss, and Mendelsohn (1989) have proposed the *Affect Grid* which consists of a very simple two-item measure of *pleasure-displeasure* and *arousal*. Administration involves giving subjects clear definitions of each of the two orthogonal dimensions which make up the grid and instructions ask subjects to place an 'x' in the area of the grid which best reflects their levels of pleasure and arousal. The grid mimics the

circumplex space. The measure is designed to provide judgments about single instances of affect or for multiple instances of affect made in rapid succession over a period of exposure to a continuous stimuli (e.g., music, drama, personal interaction, etc.). Russell et al. (1989) reported that each of the two measures underlying the Affect Grid showed convergence with its corresponding dimension in the PAD (Mehrabian & Russell, 1974a, b) and displayed discriminant validity between the dimensions of *pleasure* and *arousal.*

Watson, Clark, and Tellegen (1988) have also proposed a dimensional measure of affect. It was based on earlier work (see Zevon & Tellegen, 1982). The Positive and Negative Affect Schedule (PANAS) represents an operationalization consistent with a unipolar perspective or rotational variant of what Russell (1979, 1980) has labeled the *pleasure-displeasure* dimension. Factorial analyses of the PANAS by its designers have usually involved varimax rotations of the resulting factorial axes. This procedure has consistently yielded a unipolar *Positive Affect* (PA) dimension and a unipolar *Negative Affect* (NA) dimension. The PA and NA dimensions have emerged as distinct or separate (i.e., uncorrelated) entities (Clark & Watson, 1988; Watson & Tellegen, 1999; see also Bagozzi, 1993). Nevertheless, analyses based on other operationalizations of PA and NA have consistently demonstrated significant and negative levels of intercorrelation (see Bradburn, 1969; Diener & Emmons, 1984; Diener & Iran-Nejad, 1986; Diener et al., 1985). Watson et al. (1988) have suggested that these differences have largely emerged due to the questionable validity and reliability of other PA and NA scales such as the popular scale proposed by Bradburn (1969) which is supposedly not reliable. Watson et al. (1988) provide the following definitions of PA and NA:

> Positive Affect (PA) reflects the extent to which a person feels enthusiastic, active, and alert. High PA is a state of high energy, full concentration, and pleasurable engagement, whereas low PA is characterized by sadness and lethargy. In contrast, Negative Affect (NA) is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness, with low NA being a state of calmness and serenity. These two factors represent affective state dimensions .... (p. 1063)

The PANAS consists in one PA measure based on the ten following descriptors: *attentive, inspired, interested, alert, excited, enthusiastic, proud, determined, strong,* and *active*; and one NA measure based on ten other descriptors: *distressed, upset, hostile, irritable, afraid, scared, ashamed, guilty, nervous,* and *jittery*. Each descriptor is associated to a 5-point scale with anchor points (1 = *very slightly or not at all*) and (5 = *extremely*), and with (3 = *moderately*) as a midpoint. The instructions ask the respondent to indicate the extent to which s/he feels this way either at the present moment, today, during the past few days, etc. The measure is thus adaptable to the assessment of affect at the present time or over differing periods of time. The reported psychometric qualities of the PANAS include fairly high levels of reliability for each composite measure (for PA, $\alpha \geq .85$; for NA, $\alpha \geq .86$) along with acceptable levels of various forms of validity (see Watson et al., 1988).

A different approach to measuring emotion has been adopted by the proponents of basic or fundamental emotions. These measures do not attempt to rate an emotional state on underlying dimensions but are rather directly associated to an underlying basic emotion category. This approach typically consists in providing subjects with an emotion label (e.g., anger) and asking subjects to rate the intensity or extent to which they experience(d) that emotion on a scale. The direct scaling of emotional responses after exposure to stimuli has been common (e.g., Ekman et al., 1980). Alvarado (1997) states that:

> [d]irect scaling of emotional response occurs when a subject is exposed to an affect-inducing stimulus, then asked to introspect and rate the amount of some affect using a rating scale, often labeled with the name of an emotion to be reported, and typically numbered in intervals, such as from 1 to 7. Researchers frequently anchor the endpoints of such scales with descriptive phrases such as *not at all angry*, *extremely angry*, or *most anger ever felt in my life*. These ratings are treated as judgments on an interval, continuous scale. They are then averaged to produce means which are compared using analysis of variance (ANOVA) or *t*-test. (p. 324)

Despite their common use in the literature, some potential problems may be associated with such approaches. In particular, these scales may be subject to individual differences[51] in use

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[51] The intensity of an emotional response is an important aspect of experienced emotion. Intensity has been presented as partly a function of emotional stimuli and partly a function of individual differences (Diener & Larsen, 1985; Diener, Larsen, Levine, & Emmons, 1985). Emotion and personality are intimately related (Emmons & Diener, 1986; Larsen & Diener, 1985, 1987; Plutchik & Conte, 1997). Diener and colleagues have presented *affect intensity* as "stable individual differences in the strength

(see Larsen & Diener, 1985, 1987) and appear to meet the requirements of ordinal rather than those of interval scales (Levenson, 1992; Ruch, 1995). Accordingly, Alvarado (1997) states that: "there is no evidence that the subjective distances between adjacent numbers on every portion of the scale are equal, as would be necessary in order to assume that the data are interval in nature" (p. 324). She adds that:

> [f]urther, aggregation of data and interrater comparisons are problematic because it is unclear how individual differences in emotional response are related to individual differences in the use of rating scales. Nor have the distances between numbers been shown to correspond to the same subjective differences in response for each individual in a study .... No objective physical unit of measurement exists to compare against self-reported emotional experience. Even when we supply a 7-point scale anchored by descriptive phrases, we have no way of knowing how the individual interprets such phrases, e.g., how much anger one person has ever felt in his or her lifetime, compared to the maximum experienced by another. Further, anchoring using descriptive phrases such as *most emotion ever felt in your life* invites subjects to apply a scale with unequal distances between intervals, such that the most emotion ever felt on 10-point scale is not 10 times the amount felt when 1 is reported, but probably far greater. Use of rating scales to describe emotion is further complicated if magnitude is part of the meaning of the label used to identify the scale itself. For example, it is unclear how the difference in meaning between scale labels such as anxiety and fear, or annoyance and fury, would affect the judgments of magnitude made using that scale. Would an experience rated in the middle of an annoyance scale be rated lower if the scale were labeled frustration, anger, or rage? (pp. 324-325)

Garbarino and Edell (1997) made use of a similar approach. Subjects were asked to place a mark on a five-inch line to indicate the extent to which an affective state was experienced. The ends of the line (anchor points) for *enjoyment* were marked *A Lot of Enjoyment* and *No Enjoyment*. Such an approach was also used in Moore, Harris, and Chen (1995) who investigated the intensity of a number of negative and empathic emotions as responses to ad appeals. A categorical approach also appears in studies of emotional contagion. For instance, Hsee, Hatfield, and Chemtob (1992) provided respondents with intensity scales which ranged from '0' (*Nothing at All*) to '11' (*Maximal*).

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with which individuals experience their emotions ... regardless of how frequently those states are experienced (Larsen & Diener, 1987, p. 2). Hence, the proper use of diaries to measure emotional experience over time involves separate measures of intensity and frequency.

Another categorical approach to measuring emotion has been based on multiple indicators per category of emotion. Such an approach involves the subsequent use of factor analysis. For instance, Izard (1969, 1972) proposed the Differential Emotions Scale (DES) which essentially consisted in intensity ratings on a 5-point scale of a number[52] of adjectives found to underlie the nine basic emotions proposed in Izard (1972). The anchor points of the scales were (1 = *Very Slightly or Not at All*) and (5 = *Very Strongly*). To illustrate, the adjectives found to load on the unipolar factor representing the basic emotion *interest-excitement* were: *attentive, concentrating, alert, engaged in thought, interested,* and *contemplative* whereas those reportedly loading on the factor representing the basic emotion *enjoyment-joy* were: *joyful, enthusiastic, delighted, happy, excited, energetic, warmhearted,* and *blissful.* Later, Izard (1977) proposed the Differential Emotions Scale II (DES II) which was designed to assess responses associated with each of the ten emotions now advocated as basic or fundamental. It is important to note that the emotions which are included in sets of basic emotions are for the most part negative. This is therefore reflected in measures such as those proposed in Izard (1972, 1977).

Forced-choice category-based measurement approaches have also been utilized to assess basic emotions in the prototypical typologies presented in Plutchik (1980a, b, c, 1984), in Shaver et al. (1987), as well as in Fischer et al. (1990). For instance, Plutchik and Kellerman (1974) developed the 62-item Emotions Profile Index to measure the set of eight basic or fundamental emotions they proposed. Forced-choice emotion descriptor pairs were used. Similarly, Fischer et al. (1990) suggested that an emotion is determined by three distinct categorical components: (a) a *superordinate level* (i.e., positive or negative); (b) *basic components* (i.e., love and joy are basic components which are also positive emotions whereas anger, sadness, and fear are basic components which are also negative emotions); and (c) *subordinate components* which describe *prototypical scripts* (e.g., the negative basic component anger includes the following subordinate components: annoyance, hostility, contempt, and jealousy). This framework therefore provides delineated categories of

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[52] Izard (1972) discusses factor analytic studies that made use of different versions of the DES. Thus one version consisted in 33 items, another in 67 items, and still another in 72 items.

subjective feeling states that may serve to classify emotional experience.

Because categorical approaches typically rely on the notion of a small set of basic emotions, their response categories are determined *a priori* and thus tend not to provide assessments of broader emotional experiences such as those observed in the consumption context (e.g., Mano & Oliver, 1993; Richins, 1997). In other words, the risk that some emotions are not represented in the sets provided to respondents is problematic (Russell, 1993). For instance, *satisfaction* has been presented as an affect-based construct (Oliver, 1989a, 1993a, 1993b, 1996; Westbrook, 1987). However, traditional categorical typologies do not account for it because it is not included in various sets of basic emotions such as those proposed by the psychologists Ekman, Izard, and Plutchik. Furthermore, Scherer (1993) argues that an emotion label represents first and foremost a semantic category whose meaning may be variable. Similarly, Russell (1997) suggests that a single word or label is too simple to account for the emotional experience which underlies a label such as *anger*:

> Psychologists' instruments for the description of emotion typically yield the equivalent of a one-word answer. A major roadblock to progress in psychology is that our descriptions are too simple by an order of magnitude. To describe a particular instance of emotion as *anger* both says too much (the concept of anger suggests various features that may not be true in a particular case) and too little (much else remains unspecified). For a full account of how emotions are understood, we need to make explicit the full extent of a person's description of an emotion, much of which is omitted or only implicit in their short answers. (p. 207)

The validity of categorical measurement attempts has also been called into question elsewhere (Ortony & Turner, 1990; Richins, 1997). For instance, Ortony and Turner (1990) state that: "there is no coherent nontrivial notion of basic emotions as the elementary psychological primitives in terms of which other emotions can be explained" (p. 315). Moreover, studies have shown that category-based measures are often highly intercorrelated which, in turn, indicates some level of confounding (Russell, 1987). Furthermore, the discriminant validity among measures of presumably different positive and among measures of presumably different negative emotions is often lacking in nonexperimental settings (Bagozzi, 1991, 1993; Bagozzi et al., 1999).

Various appraisal theories reviewed in Chapter One suggest that various forms of antecedent appraisals lead to discrete emotions (e.g., Roseman, 1991). Studies based on appraisal theory tend to use category-based measures of emotion (Scherer, 1993). Bagozzi et al. (1999) find that category-based approaches, as opposed to their dimensional counterparts, are most suitable (a) within the context of a particular theory where categories of emotion can be operationalized as antecedents, consequents, or moderator variables and (b) when rather complex manipulations of antecedent appraisals are attempted as opposed to instances where one measures reactions to a single stimulus such as an ad. They go on to say that:

> [t]he advantage of a theory-based approach to emotions is that specific conditions can be specified for the occurrence of distinct emotions, and these hypotheses can be tested .... Discrete emotional reactions are likely to happen when one manipulates conditions producing specific appraisals or when naturally occurring events correspond to unique appraisal conditions. (p. 190)

4.2.2 Measures of Displayed Emotion

The categorical perspective on emotion underlies many attempts at measuring displayed emotion. For instance, categorical measurement attempts have typically been used in many often-cited studies of emotion recognition where it is often tacitly presumed that expressed emotion is equivocal to felt emotion. Raters have usually been given a list of basic emotions such as *happiness, sadness, fear, surprise, anger, contempt,* and *disgust*; and then asked to choose the one emotion which they recognized in photographic portraits (e.g., Ekman, 1972; Ekman & Friesen, 1971, 1975; Izard, 1971). This approach has been extended to audio channels (e.g., Hatfield et al., 1995) and dynamic stimuli (Wehrle et al., 2000). For instance, Wehrle et al. (2000) showed raters videotaped dynamic expressions of emotion and asked them to rate the intensity of each expression on 5-point categorical scales associated to semantic categories of emotion (e.g., anger, sadness, etc.).

Various microanalytic objective measurement systems of facial expressions have been proposed (e.g., Ekman & Friesen, 1976, 1978a, b; Izard, 1979). These systems allow for examinations of interrelationships among facial expressions, instrumental behavior, and physiological processes (e.g., Ekman, Levenson, & Friesen, 1983). Izard (1990) states with

respect to EMG studies that:

> [f]or example, the anatomically-based systems for coding observable facial behavior facilitated the study of covert expressions by electromyography (EMG). The facial behavior coding system specified the muscles involved in each appearance change or expressive behavior in each region of the face. Thus, the investigator can place electrodes on muscles predicted to be involved in the expression of particular emotions. Studies of covert expression have shown reliable relations between patterns of EMG activity associated with specific emotions and corresponding emotion experiences or feeling states measured by self-report (e.g., Fridlund, Schwartz, & Fowler, 1984; ...). (p. 487)

Ekman and Friesen (1976, 1978a, b) proposed the *Facial Action Coding System* (FACS). The FACS distinguishes among 44 facial *action units*. Each *action unit* represents a minimal unit in the sense that it's muscular action is anatomically separable and visually distinguishable. Accordingly, each facial movement can be described in terms of a single action unit or a combination of two or more action units. For instance, a smile may involve various muscle groups and movements. FACS allows a rater to decompose each of the movements involved in a smile in nonaffective terms. Moreover, FACS allows the rater to specify when the expression began and when it ended. It is thus designed to measure all facial action not only that presumed to reflect emotion. When multiple raters are used, interrater reliability can be calculated (Ekman & Friesen, 1978b). Ekman, Friesen, and Ancoli (1980) used the FACS and self-report ratings in their study of spontaneous facial expressions. The FACS ratings of expressed emotion showed the measures ability to discriminate among facial displays of emotions. Moreover, ratings on the FACS tended to converge with the self-report assessments. In the studies of emotional contagion conducted by Hatfield and her associates, a similar convergence was evident (e.g., Hsee, Hatfield, Carlson, & Chemtob, 1990).

An alternate system for assessing expressed emotion was developed by Kring (see Kring & Sloan, 1991; Kring & Tomarken, 1993). The *Facial Expression Coding System* (FACES) is based on Russell's (1979, 1980) two dimensions of affect: *pleasure-displeasure* and *arousal*. Its use involves trained raters who are asked to assess a subjects emotional reactions over these dimensions.

In another stream of research, expressed emotion has been investigated in the context of mental illness. Expressed emotion has been generally used to predict the course of an illness and treatment outcome (e.g., Chambless, Bryan, Aiken, Steketee, & Hooley, 1999; Hooley, 1998; Jensen & Karno, 1992; Kavanaugh, 1992). For instance, Chambless et al. (1999) proposed a three-factor model of expressed emotion (Criticism, Emotional Overinvolvement, and Positivity) from data gathered from a sample of mentally-ill outpatients and their relatives. A variety of measurement approaches were used to measure each of the three components which included: interviews of relatives, coding of videotape in which a patient interacts with relatives, and self-report questionnaires. A battery of measures essentially assessed the relative's emotional expressions vis-à-vis the target patient over the three proposed dimensions. Confirmatory factor analysis suggested that the three factors were minimally correlated and thus distinct.

4.3 Consumption Emotions

Marketing's flirtations with emotion are fairly recent (Bagozzi et al., 1999). As do other areas of inquiry in the social sciences, the area of marketing clearly displays to this day remnants of the cognitive revolution in its theories and conceptualizations. Efforts to address emotion have typically involved attempts at fitting or "blending" emotion onto existing models whose basic tenets reflect a highly cognitive perspective on the buyer (Cohen & Areni, 1991). This is particularly evident in the area of services marketing where attempts have been made to incorporate emotion into models of service evaluation which presume much mental arithmetic on the part of the consumer (e.g., Oliver, 1996; Westbrook, 1987; Westbrook & Oliver, 1991).

In their explorations of emotion, marketing researchers have typically relied on a psychological perspective. This has lead to many attempts at sorting out which emotions at the intrapersonal level were relevant to consumption. These attempts are more often centered on the development of consumption-related measures of emotion per se rather than the development of measures which are rooted in some theory of emotion. In other words, little or no consideration is given to how an emotion is generated during consumption and focus is put on the content of proposed measures and their ability to account for affective reactions

during consumption. Categorical schemes of emotion have typically been utilized in consumer research. In particular, the content of Izard's (1977) DES II measure along with that of Plutchik's (1980a) measure of eight prototypical emotions have appeared quite often in the area within measures of emotional responses to a variety of consumption-related stimuli. The use of dimensional approaches to affect is more recent. Various studies have attempted comparisons between the two perspectives. Accordingly, Westbrook and Oliver (1991) propose that the term *consumption emotion* refers to:

> the set of emotional responses elicited specifically during product usage or consumption experiences, as described either by the distinctive categories of emotional experience and expression (e.g., joy, anger, and fear) or by the structural dimensions underlying emotional categories, such as pleasantness/unpleasantness, relaxation/action, or calmness/excitement .... (p. 85)

Mano and Oliver (1993) drew on a dimensional approach which was based on the work of Russell (1979, 1980) and its rotational variant proposed by Watson and Tellegen (1985) so as to define and assess affect in product-related contexts. They argued that work on affect and advertising (e.g., Holbrook & Batra, 1987a; Mano, 1991) and work on affect and product-elicited experiences (e.g., Oliver, 1992; Westbrook, 1987) both suggested that the dimensional perspective was better suited at capturing the invoked emotional responses. Earlier, Oliver (1992) had undertaken a dimensional analysis of Izard's (1977) category-driven DES II and had extracted two dimensions akin to the two primary dimensions of affect (i.e., pleasure and arousal) reported in Russell (1979, 1980). Mano and Oliver (1993) state that: "[i]n particular, an important consequence of the two-dimensional view is the need to draw attention to how both primary dimensions can influence the postconsumption experience" (pp. 453-454). They go on to delineate *evaluation* (i.e., attitude), *affect*, and *satisfaction* (i.e., partly an affective experience that is an attitude-like postconsumption evaluative judgement).

Prior research had identified dimensions of affect as contributors to satisfaction (e.g., Westbrook, 1987; Westbrook & Oliver, 1991). Mano and Oliver (1993) constructed a combined measure of emotional reactions from the PANAS scale (Watson et al., 1988) and the eight scales proposed in Mano (1991) which represent the eight regions or octants of the circumplex space (Russell, 1980, 1997; Watson & Tellegen, 1985). Three factor analyses

were performed. The first principal components analysis revealed up to ten factors which, in turn, explained 72% of the total variance in the data. However, sharp decreases in eigenvalues after the second and third factors were taken to indicate the predominance of two or three factors. A second factor analysis constrained the number of factors to three. The rotated solution revealed the following structure: (a) *upbeat positive affectivity*, (b) *negative affectivity*, and (c) *low arousal and warmth*. This three-factor solution was found to be similar to that uncovered in Edell and Burke (1987). Next, another factor analysis which constrained the number of factors to two suggested that (a) *positive high arousal* and (b) *negativity* were the factors underlying the data. This two-factor solution was taken as representative of the rotated solution proposed in Watson and Tellegen (1985) and its unrotated counterpart in Russell (1980). This final solution was thus found to reflect the appropriateness of the circumplex to consumption experiences. Mano and Oliver (1993) favored the two-factor solution and argued that additional analyses recaptured the shape of the circumplex model. The proposed measure of affect which emerged from this process was based on ten subscales (i.e., the two PANAS subscales and Mano's eight subscales).

Richins (1997) proposed the Consumption Emotions Set (CES). Her reason for developing this scale was that the measures of affect typically used in studies of consumption could not account for the diversity of emotional experience during consumption. Her article offers a critical review of many measures of emotion. The CES is composed of sixteen subscales (e.g., Anger, Discontent, etc.). Each subscale is made up of two to three items. This approach is similar to that of Izard (1972, 1977). However, it clearly includes more emotions than the sets proposed by those who have argued in favor of basic or fundamental emotions (e.g., Ekman, Izard, and Plutchik). Internal consistency estimates for the proposed subscales ranged from $r = .39$ to $r = .73$ for two-item composite scales and from $\alpha = .81$ to $\alpha = .91$ for composite measures of three or more items.

Havlena and Holbrook (1986) reported that Mehrabian and Russell's (1974a, b) dimensional approach was clearly superior to Plutchik's (1980b) categorical approach in investigations of consumption experiences:

> In general, the three dimensions of pleasure, arousal, and dominance captured more information about the emotional character of consumption experiences than did their

> measurement via the eight basic emotional categories suggested by Plutchik. Within the context of consumer behavior ..., our results suggest that the Mehrabian-Russell framework is probably more useful than Plutchik's scheme for positioning consumption experiences in an emotion space and for developing emotion-specific emotional profiles .... The Mehrabian-Russell space yielded good generalizable predictions not only for the PAD indices ... but also for seven of the eight Plutchik emotions .... The Plutchik categorization, on the other hand, requires the collection of data on eight discrete emotions. Further, the inability of the Plutchik space to represent the arousal dimension suggests that separate information on arousal and intensity of the basic emotions should also be obtained. (p. 402)

Moreover, Bagozzi et al. (1999) suggest that dimensional perspectives seem to be better suited in instances where single stimuli such as ads are used (e.g., Edell & Burke, 1987; Holbrook & Batra, 1987b; Batra & Holbrook, 1990). For instance, Batra and Holbrook (1990) suggested 12 types of emotional reactions to ads after submitting emotional traits to cluster analysis followed by reliability and validity assessments. Nevertheless, they also extracted three principal factors through factor analysis: (a) *arousal-excitement*, (b) *pleasantness-calmness*, and (c) *distress-sadness*. They viewed the factors as underlying the emotional experiences. More generally, Mano (1991) attempted to resolve the differences between dimensional and categorical approaches by applying factor analysis, MDS, and cluster analyses to items designed to measure emotional states. He concluded that: "[d]espite the seemingly opposite goals of the dimensional and classification methodologies, the results suggest a strong method-convergence and demonstrate the generality of the affective *circumplex*, even for the non-dimensional methods" (p.396).

Holbrook and Batra (1987a) suggested that the involvement of consumer behaviorists in the area of affect had displayed various variations of the basic C-A-B[53] paradigm and tended to be based on the use of constructs which were rather narrowly conceptualized and that also tended to be unidimensional. For instance, they argued that cognition was typically

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[53] This paradigm basically implies that cognition (C) determines affect (A), which, in turn, determines behavior (B). Many variations and refinements of this basic sequence have been proposed (see Holbrook & Batra, 1987a). In Bagozzi et al. (1999), the validity of this sequence is clearly endorsed in that cognitive models of emotion are positioned as the dominant in psychology and reliance on these models is clearly suggested in the area of marketing. The cognitive revolution (see Gray, 1999) clearly still dominates current marketing thought. If cognition is defined as a form of mental calculus (see Scherer, 1993; Zajonc, 1980), the endorsement of this sequence clearly downplays the role of pre-attentive processes in emotion (see Öhman, 1999).

conceptualized as normative beliefs whereas behavior had usually been presented as buying responses. More importantly, they argue that: "affect has typically been treated as a unidimensional bipolar continuum (as measured by scales such as like/dislike, positive/negative, favorable/unfavorable, good/bad, or pro/con)" (p. 405). Specifically, earlier studies of emotional responses to ads had typically utilized simple unipolar indices of affect which in some instances were attitudinal in nature (e.g., A_{ad}) (see Gardner, 1985 for a review), others had consisted in measures of subsets of the emotional spectrum (e.g., Batra & Ray, 1986), some had assessed single dimensions such as warmth (e.g., Aaker, Stayman, & Hagerty, 1986), and still others were measures developed by psychologists such as that based on the eight emotion categories proposed in Plutchik (1980a) (see Holbrook & Westwood, 1988). Holbrook and Batra (1987a) go on to say:

> [w]e suggest the need for broadening the unidimensional view of affect prevalent among consumer researchers to encompass the full gamut of emotions that characterizes responses to the consumption of products in general and the communication effects of advertisements in particular. These emotional reactions include not only liking or disliking, but also love, hate, fear, anger, joy, sadness, and so on, almost indefinitely .... (p. 405)

Accordingly, Holbrook and Batra (1987a) developed an initial measure which consisted in a set of 29 emotion indices. Each contained multiple items. Principal components analysis revealed the existence of three underlying factors. Quite evidently, this solution mimicked the dimensional structure of Mehrabian and Russell's (1974a, b) PAD measure: (a) pleasure, (b) arousal, and (c) dominance (see also Holbrook & Batra, 1987b). Next, the role of affect was investigated in a variety of relationships between ad content, A_{ad}, and A_{brand} (A_b). Emotional responses to ads (i.e., pleasure, arousal, and dominance) emerged as a mediator between ad content and A_{ad},. Moreover, they found emotional responses along with A_{ad} "partially mediated the effects of ad content on A_b" (p. 417).

In conclusion, emotions are presumed to be intrapersonal phenomena by researchers in marketing. The measures used in the area are clearly rooted in a purist psychological perspective on emotion without really taking a theoretical stance on the nature of emotion. The interpersonal bases of emotion appear disregarded by marketing researchers. However, they have been acknowledged in recent work in psychology (e.g., Chovil, 1991; Fridlund,

1994; Zajonc, 1998) and are clearly addressed in the sociology of emotions (see Kemper, 1991, 1993). The next chapter offers a review of the literature on emotional contagion. This literature is psychological but clearly places emotion in the realm of interaction and therefore appears particularly relevant to services.

CHAPTER 5

EMOTIONAL CONTAGION

> Sentiments, emotions, and ideas possess in crowds a contagious power as intense as that of microbes.
>
> - Gustave LeBon (1895)

Many potential explanations for why an emotional response occurs have been presented in previous chapters. Within psychology, the somatic and cognitive perspectives examined in Chapter One vary with respect to what they emphasize as the determining cause of emotion. Somatic theories suggest that emotion is essentially a bottom-up process. Those in the Darwinian tradition stress hardwired biological and evolutionary factors (e.g., Ekman, 1973; Izard, 1972, 1977; Tomkins, 1962, 1963) whereas those of the Jamesian tradition emphasize visceral reactions and expressive feedback (e.g., Mandler, 1975). Alternatively, cognitive perspectives put emphasis on antecedent appraisals and suggest that emotion is a top-down process (e.g., Lazarus, 1991a). Moreover, a social motive perspective (e.g., Fridlund, 1991a) has also been presented within psychology which appears to discount the claims of many somatic researchers in emotion expression; and especially those of Ekman and Izard who have repeatedly suggested that facial expressions are reflections of internal feeling states.

On the other hand, sociologists have repeatedly suggested that emotions are social or interpersonal phenomena (Kemper, 1991, 1993). Various sociological theories have been proposed to account for the role of the socius in emotion. Some involve power and status perceptions (Kemper, 1978) whereas others focus on forms of cognition which they address from the perspective of symbolic interaction theory (see Kemper, 1991, 1993). Many propose compliance with various norms as a fundamental mechanism of emotional expression (e.g., Shott, 1979; Gordon, 1981, 1990; Thoits, 1985, 1990). Still others emerge as hybrid theories which incorporate elements from psychological and sociological perspectives (Averill, 1980a, b, c, 1982; Hochschild, 1983a; Mandler, 1990, 1992). These latter theories have been categorized as *constructivist* or *psychosocial* (see Metts & Bowers, 1994).

An interpersonal phenomenon called *emotional contagion* may also be involved in the generation of emotional reactions. Recent discussions of emotional contagion draw

heavily on somatic theory to describe an assembly of proposed mechanisms. Unlike most mechanisms of emotion proposed by psychologists, emotional contagion requires exposure to or interaction with another person. Various examples from psychotherapy exist which suggest that emotions are indeed contagious. For instance, Hatfield et al. (1994) state in the introduction to their book on emotional contagion that:

> [f]or over a decade, Richard L. Rapson and I (Elaine Hatfield) have worked together as therapists. Often, as we talk through the sessions over dinner, we are struck by how easy it is to catch the rhythms of our clients' feelings from moment to moment and, in consequence, how profoundly our moods can shift from hour to hour. (p. 1)

Similarly, the sociologist Perinbanayagam (1989) relates an example from psychoanalysis that clearly suggests that emotional contagion is a phenomenon common to social interaction. He adds that:

> [t]his becomes clear when one considers a number of well-known phenomena: laughter and mirth, once begun by an actor, soon "infects" the other or others in the same act. Among theater audiences watching a comedy, even when bad jokes elicit laughter from one or two members of the audience, most of the audience then gives the appearance of joining in the chorus of mirth. (p. 75)

In the area of theater, Stanislavski (1948/1965) vehemently argued that audiences are moved by felt and spontaneous displays of emotion. Stanislavski's Method for actors was designed to train performers to elicit emotions in themselves via the use of *emotion memories* prior to appearing on stage. According to Stanislavski, feeling the emotion one projects will result in a much more engaging performance than one that is simply based on feigned emotional expressions. Although Stanislavski (1948/1965) did not make use of the term *emotional contagion*, it is evident that in many instances he was referring to its effects when discussing the potential of spontaneous emotional displays in engaging and moving an audience.

Serious discussion of emotional contagion in the mainstream psychological literature is a fairly recent phenomena (Sullins, 1991). Although strong evidence has now been accumulated in the social sciences indicating that social contagion phenomena do indeed occur, social scientists have for the most part failed to take the "implication of social contagion research seriously" (Marsden, 1998, p. 5). In particular, no mention of emotional

contagion appears in recent reviews of emotion in the area of marketing (e.g., Bagozzi et al., 1999). In this chapter, we examine the findings which indicate that emotional contagion does occur along with the various explanations that have been provided for this phenomenon. We also briefly examine what constitutes conscious and unconscious psychological phenomena. This distinction underlies not only the literature on emotional contagion but also many perspectives on emotion and psychological processes in general. It is key in delineating emotional reactions that are mediated/moderated by cognition from those which are pre-attentive.

5.1 Emotional Contagion Defined

In latin, the word *contagio* means "and from touch." In English, the term *contagion* therefore signifies "a process of transmission by touch or contact" and more specifically refers to "1) the social transmission, by contact, of biological disease, and 2) the social transmission, by contact, of sociocultural artefacts or states" (Marsden, 1998, p. 2). Social contagion has been documented for quite some time (e.g., Le Bon, 1895; Tarde, 1903). Recent research that has investigated the occurrence of the phenomenon has suggested its presence in various aspects of social life (see Levy & Nail, 1993). A variety of classes of phenomena are reportedly subject to contagion: (a) hysteria (Colligan & Murphy, 1982), (b) rule breaking (e.g., Jones & Jones, 1995), (c) deliberate self-harm (e.g., Stack, 1987), (d) buying and selling frenzies in financial markets (e.g., Lux, 1998), (e) consumer behavior (Bass, Mahajan, & Muller, 1990), (f) aggressive behavior (Bandura, 1973), and (g) emotional states (Hatfield, Cacioppo, & Rapson, 1992a, 1994). Emotional contagion is the only variety of the phenomenon which is not discussed simply with respect to an overt behavioral response.

McHugo, Lanzetta, and Bush (1991) state that: "[e]xpressive displays of emotion are information-laden and evocative; they provide dispositional and situational information, and they can produce emotional reactions in observers" (p. 19). McDougall (1920) defined emotional contagion as "the principle of direct induction of emotion by way of the primitive sympathetic response." In the psychotherapeutic literature, emotional contagion has been related to *countertransference* (Emde, Gaensbauer, & Harmon, 1982; Hsee, Hatfield, &

Chemtob, 1992; Tansey & Burke, 1989). Hatfield et al. (1992a) broadly define emotional contagion as:

> the tendency to catch (experience/express) another person's emotions (his or her emotional appraisals, subjective feelings, expressions, patterned physiological processes, action tendencies, and instrumental behaviors). (p. 153)

Accordingly, the process can involve various components of emotion. They add that:

> [e]motional contagion represents a *family* of phenomena, because it can manifest as similar responses (e.g., as when smiles elicit smiles) or complementary responses (e.g., as when the sight of a stroke aimed leads to a drawing back of the site of the blow). Emotional contagion is a *multilevel phenomenon* because the precipitating stimuli arise from one individual, act upon (i.e., are perceived and interpreted by) one or more other individuals, and yield corresponding or complementary conscious awareness; facial, vocal, and postural expression; neurophysiological and autonomic nervous system activity; and gross emotional behavioral responses in these individuals. Thus an important consequence of emotional contagion is an attentional, emotional, and behavioral synchrony that has the same adaptive utility (and drawbacks) for social entities (dyads, groups) as has emotion for the individual. (p. 153)

One variety of emotional contagion which is largely unconscious, automatic, unintentional, and uncontrollable has been referred to as *primitive emotional contagion*. It is defined as "the tendency to automatically mimic and synchronize movements, expressions, postures, and vocalizations with those of another person and, consequently, to converge emotionally" (Hatfield et al., 1992a, p. 154). Levenson (1996) holds that emotional contagion and the more conscious or "cognated forms of interpersonal emotion ... are now subsumed under the broad rubric of *empathy* [italics added]" (p. 187). Levenson (1996) adds that: "[i]n current empirical parlance, empathy encompasses (a) emotional contagion (feeling what another person is feeling), (b) empathic reaction (responding to another person's emotions), and (c) empathic accuracy (knowing what another person is feeling)" (p. 187).

5.2 Mechanisms of Emotional Contagion

Because emotional contagion is multiply determined (Hatfield et al., 1992a, 1994), many possible mechanisms of how a person can catch another's emotions have been proposed. Early theories of emotional contagion suggested that people get to know what others feel through mechanisms highly dependent on cognition which involve conscious

reasoning (processing) and mental imagery (Bandura, 1969; Humphrey, 1922; Lang, 1985; Luria, 1902). That mental imagery or cognitive manipulation can generate an emotional response has been established in many studies (e.g., Cacioppo & Petty, 1981; Schwartz, Fair, Salt, Mandel, & Klerman, 1976). Accordingly, Hsee et al. (1990) suggest that "the conscious realization that another person is happy or sad could make us happy .... The realization that another is happy or sad may trigger memories of the times *we* have felt that way: these reveries may spark emotion" (p. 328).

Other theorists have proposed a more primitive learning-based mechanism (e.g., Allport, 1924; Aronfreed, 1970; Bandura, 1965). In this perspective, congruent empathic responses in observers occur because the emotional responses of actors represent conditioned stimuli that elicit congruent emotional reactions (conditioned responses). Accordingly, developmental perspectives on empathy have emphasized early conditioning history between for instance mother and child (e.g., Hoffmann, 1975).

Some researchers (e.g., Dimberg & Öhman, 1996; Öhman & Dimberg, 1978) have referred to Seligman's (1970) *preparedness theory* which holds that stimuli differ in their level of association with responses because of an evolution-determined within-species readiness to associate some events but not others. This view is essentially Darwinian and for instance suggests "natural" fear responses to snakes and spiders (e.g., Dimberg, 1990a; Dimberg & Öhman, 1996; Lovibond, Siddle, & Bond, 1993). Although preparedness appears to clearly underlie some emotional responses (e.g., Dimberg, 1990a; Dimberg & Öhman, 1996; Lundquist & Dimberg, 1995); in the context of human interaction, these responses appear likely to be triggered by expressions of fear and anger (Smith et al., 1996). That these responses are evolutionary and prewired is indicated by much research which has used a variety of conditioning paradigms. For instance, Orr and Lanzetta (1980) found that a fear response in an observer is typically more easily associated (learned) to an angry rather than a happy expression. Elsewhere, Lanzetta and Orr (1980) showed that a fear response was also more difficult to extinguish than a response to happy or neutral expressions.

The mechanism which has more recently been proposed as underlying emotional contagion is based on motor mimicry and subsequent facial feedback (Hatfield et al., 1992a,

b, 1994). In this two-stage perspective, "people tend automatically and continuously to mimic and synchronize their movements with the facial expressions, voices, postures, movements, and instrumental behaviors of others ... Subjective emotional experiences are affected moment to moment, by the activation and /or feedback from such mimicry" (Hatfield et al., 1994, p. 10). Much evidence has been accumulated which indicates that people do tend to automatically mimic facial expressions (e.g., Bavelas, Black, Lemery, & Mullett, 1987; Bernieri, Reznick, & Rosenthal, 1988; Cacioppo, Tassinary, & Fridlund, 1990; Dimberg, 1982; Vaughan & Lanzetta, 1980), vocal patterns (e.g, Capella, 1991; Chapple, 1982; Condon, 1982), and postures (e.g., Bavelas, Black, Chovil, Lemery, & Mullett, 1988; Scheflen, 1964); and that they synchronize their rhythms and movements to those of other persons during interaction (e.g., Bernieri, 1988; Bernieri, Reznick, & Rosenthal, 1988; Warner, 1988).

Mimicry forcibly involves some form of antecedent perception. However, it has been demonstrated that very little of the information that we process moment to moment is attended to in a conscious manner (Bargh, 1989; Wilson, 1985; Öhman, 1999). We generally tend to pay attention to the most difficult, unusual, and important information (Lachman, Lachman, & Butterfield, 1979) and cognitive complexity tends to increase in social situations when expectations are violated, after perceptions of failure, or when goals are hindered (Lazarus, 1991a; Weiner, 1986). On the other hand, the type of perception which is involved in the micromomentary mimicry process is in all likelihood unconscious (pre-attentive) and automatic (Hatfield et al., 1992a). Naturally occurring mimicry can in fact be impeded by conscious efforts (Davis, 1985; Hatfield et al., 1994). Specifically, Davis (1985) has suggested that conscious motor mimicry is difficult to engage in because the natural process is too rapid and too complex. Hatfield et al. (1994) state that:

> there is not much mystery to the observations of therapists and others that, though not *consciously* aware that their clients (say) are experiencing joy, sadness, fear, or anger, they "somehow" do sense and react to these feelings. Today, emotion researchers assume conscious awareness of only a small portion of the information we possess about ourselves and others. (p. 15)

Bavelas et al. (1987) suggest that elementary motor mimicry is "overt action by an observer

that is appropriate to or mimetic of the situation of the other person, rather than one's own" (p. 317). They add that: "[t]he observer acts as if in the other's place to the point of wincing at his pain, smiling at her delight, or trying to avoid that person's danger" (p. 317). Synchrony (coordination) in mimicry between people appears to provide a process which enables rapport (Bernieri, 1988; Bernieri et al., 1988; Tickle-Degnen & Rosenthal, 1987) and appears to smoothen interaction (Hatfield et al., 1994).

The experience of another person's emotion through emotional contagion is not only dependent on mimicry and synchrony but also on various forms of feedback which lies at the heart of the Jamesian perspective on emotion (see James, 1884, 1890). Feedback and emotional experience (i.e., internal feeling state) have been linked by many authors (e.g., Adelmann & Zajonc, 1989; Ekman, 1992a; Laird & Bresler, 1992; Leventhal, 1980; Manstead, 1988; McIntosh, 1996). The proposed mechanisms by which facial (Manstead, 1988; McIntosh, 1996), postural (Bull, 1968; Cacioppo, Priester, & Berntson, 1993; Duclos et al., 1989), and vocal (Hatfield, Costello, Schalenkamp, Hsee, & Denney, 1995; Zajonc et al., 1989) feedback influence other aspects of emotion are many. Theory-based accounts by Jamesian researchers hold to the notion of an emotion system/program and suggest that facial action influences emotion via the emotion system (e.g., Ekman, 1992a; Izard, 1971, 1990; Levenson et al., 1990; Tomkins, 1962). Emotion systems are presented as coordinating responses to emotion-eliciting stimuli and presume a Central Nervous System (CNS) connection between the motor cortex and various regions of the brain involved in the physiological changes which occur during emotion (e.g., Ekman, 1992a; Kelley & Stinus, 1984). Various neural-based explanations have also been provided (e.g., Damasio, 1994; Levenson et al., 1990; Matsumoto & Lee, 1993). Activation of one aspect is typically posited to result in activation of the other components in the emotion system. In this perspective, the voluntary simulation of expressive displays may result in initiating the expression-specific feeling state (e.g., Duclos et al., 1989; Izard, 1990). In some views, induced emotions are presented as only concomitant with ANS (Autonomic Nervous System) changes (Levenson et al., 1990) and in others which are less oriented toward CNS activity, ANS activity provides peripheral feedback (Izard, 1990).

Darwinian-based mechanisms position facial feedback as a by-product of conditioning (Buck, 1980), self-perception (Duclos et al., 1989; Laird & Bresler, 1992; Laid et al., 1994), and dramaturgy along with social context considerations (Fridlund, 1994; Laird, 1974). The experiments by Lanzetta and associates along with those of Dimberg and associates discussed below exemplify a conditioning-based approach to facial displays. Explanations based on self-perception theory (Bem, 1967) point out that the face provides information with respect to how one is feeling (e.g., Duclos et al., 1989; Laird et al., 1992). For instance, Laird et al. (1994) state that: "[s]elf-perception theory ... holds that, in knowing anything about ourselves, we are essentially in the same position as an outside observer who infers our psychological states from observing our actions" (p. 232). They add that: "[i]n this view, the effect of emotional behavior on feelings of emotion is an example of the more general case that anything we know or feel about ourselves must be derived from our behavior and the context in which it occurs" (p. 232). However, some findings have countered this explanation (e.g., Strack et al., 1988; Winton, 1986). An account of the dramaturgical view on how adopting a facial expression of emotion can lead to alterations in one's feeling state appears in Fridlund (1994). Accordingly, Stanislavski (1948/1965) held that emotional memories can be relived by executing the physical actions which have been associated with particular emotions.

5.3 Emotional Reactions to Facial Expressions

Despite the fact that emotional contagion may be multiply determined (see Hatfield et al., 1994), two important mechanisms emerge in the literature which can account for mutual feelings during interaction. One is *preparedness* (Dimberg, 1995; Dimberg & Öhman, 1996; Seligman, 1970) and the other is *primitive emotional contagion* which is based on mimicry and feedback (Hatfield et al., 1992a; 1994). In this section, we examine research which points to these mechanisms as determinants of emotional contagion.

Darwin (1872) suggested that emotional expressions were spontaneous and that an analog mechanism for decoding the reactions of others was present across species and that it was also automatic. Dimberg (1990a) states that: "[a]n important basis for the presumed biological roots of facial expressions is their role in the communication of emotion in face-

to-face interactions" (p. 482). This view is also echoed by Ekman (1992b) who holds that facial reactions can be automatically elicited and subsequently controlled by facial affect programs. Darwin's view was also extended by Tomkins (1962) and incorporated in the communication studies perspective adopted in Buck (1984, 1988a). Specifically, the evolutionary or Darwinian stance on emotion implies that individuals have a hardwired "readiness to *spontaneously* react with specific emotional responses to particular facial expressions" (Dimberg & Öhman, 1996, p. 170). Along the same lines, Seligman (1970) proposed the concept of *preparedness* which suggested that "learning was facilitated by evolutionary derived predispositions to associate more easily some events than others" (Dimberg & Öhman, 1996, p. 151). Hatfield et al. (1992a, 1994) position this Darwinian process as one among many possible mechanisms of contagion.

Within this evolutionary perspective, the researchers Dimberg, Öhman, and Lanzetta (and their associates) investigated reactions to a variety of stimuli which included expressed emotion in others. A conditioning or learning theory framework was adopted in some of these studies. This framework addressed the issue of whether emotional reactions to stimuli were sensitive to learning. Dimberg (1990a) finds that previous work had demonstrated that: "supposedly biologically prepared stimuli, such as angry facial expressions, are particularly potent in eliciting conditioned autonomic responses in the aversive classical conditioning paradigm ..." (p. 486). He adds that: "[b]ased on this evidence, I reasoned that this paradigm could be used to determine whether it is possible to aversively condition facial muscle responses" (p. 486). Elsewhere, Dimberg and Öhman (1996) state that: "[a]pplying the preparedness hypothesis to facial gestures rests on the explicit claim that different facial expressions are differentially associable to different outcomes in Pavlovian conditioning arrangements" (p. 153). Accordingly, McHugo et al. (1991) hold that: "[n]umerous aversive conditioning experiments have shown that static images (slides) of facial expressions of happiness are inhibitory stimuli for electrodermal reactions, whereas expressions of fear or anger are excitatory ...." (pp. 19-20). Thus, work of this type has generally attempted to demonstrate that conditioning could enhance predisposed emotional reactions to stimuli (e.g., fear resulting from exposure to an angry face) and/or that it would be difficult to extinguish

"natural" responses to stimuli of angry, sad, and fearful faces. Much research has indeed suggested that such responses may be deemed innate and preprogrammed (for a review, see Wispé. 1991). Accordingly, results from many studies have tended to converge on and confirm the preparedness hypothesis (Öhman & Dimberg, 1978; Dimberg, 1983, 1986, 1987; Lanzetta & Orr, 1981; Orr & Lanzetta, 1980, 1984).

Various conditioning paradigms have been used in conditioning research. In a classical conditioning experiment such as the one executed by Lanzetta and Orr (1986), a neutral cue (tone) was associated to electric shock (acquisition phase). Then, expressions of emotion (happy or fearful face) were paired with the conditioned stimulus (tone) but without a subsequent electric shock (extinction phase). For one half of the subjects, the electrodes were removed before the start of the extinction phase. For the other half, they were left in place. This allowed observation of the influence of happy and fearful facial stimuli under conditions of low or high objective threat. Results demonstrated that the fearful face emerged as an effective signal of danger regardless of whether the objective threat (electrodes) had been removed. The fearful face as a signal of danger appeared to operate automatically in that it seemed to be processed automatically and in a context-independent manner. Lanzetta and Orr (1986) argued that this provided evidence for the validity of the preparedness hypothesis.

Dimberg (1990a) discusses and describes a conditioning study he had done earlier (Dimberg, 1987) which demonstrated that it was possible to aversively condition facial reactions. Results were taken as supportive evidence for the preparedness hypothesis. In reference to his study, Dimberg (1990a) states that:

> subjects were aversively *conditioned* to slides of angry or happy facial expressions. In this study, a differential conditioning paradigm was used. More specifically, subjects were exposed to two different pictures. the CS+ and CS-, with a stimulus duration of 8 s. The experiment consisted in three phases. During the habituation phase the subjects were exposed to a number of presentations of each stimulus picture. During acquisition the CS+ was terminated by an aversive unconditioned stimulus (UCS: a 100dB noise with duration of 1 s) whereas the CS- was never paired with the UCS. During extinction the subjects were exposed to nonreinforced presentations of both CS+ and CS-. Furthermore, in this paradigm, conditioning effects as well as resistance to extinction can be evaluated in terms of a difference in responding between the reinforced CS+ and the nonreinforced CS-. The group conditioned to angry stimuli discriminated between two reinforced and nonreinforced

> angry faces whereas the group conditioned to happy stimuli discriminated between two reinforced and nonreinforced happy faces. Because the critical effect in earlier studies ... has been detected as resistant autonomic responding during extinction, it was expected that similar results should be obtained in the present study. Thus, besides inducing resistant autonomic responses, angry stimuli were expected to induce a persistent conditioning effect detectable in corrugator activity during the extinction phase, but happy faces should not .... As expected, angry faces induced persistent conditioned corrugator activity, but no other effects were statistically significant. (p. 486)

Vicarious classical conditioning was adopted in Vaughan and Lanzetta (1980) to study whether mimicry underlies emotional contagion. Observers viewed videotaped subjects (confederates) engaged in a word-pair memorization task. In some instances, the subjects in the tapes were apparently shocked and displayed painful emotional expressions. In other tapes, subjects were not shocked. EMG activity and skin conductance were measured in observers. Findings generally indicated that observers displayed a strong emotional response to viewing another person getting shocked. The conditioning model also appeared to have vicarious effects on the observer in that when the word which preceded the person on the tape being shocked was presented to observers, their facial muscles and autonomic system behaved in a manner which suggested that they were anticipating shock. In other words, the observers mimicked the subject's painful facial expressions and the increase in level of arousal indicated that the subject's pain displays instigated an empathic response in the observer. Elsewhere, Vaughan and Lanzetta (1981) argue that:

> [e]motional reactions vary, of course, both in quality and in their source or arousal, and the generality of self-regulation hypotheses requires tests with emotional states other than fear or pain. One pervasive form of emotional reaction is aroused vicariously, by observing the emotional reactions of others .... In Pavlovian terms, this *vicariously instigated response*, ... can be conceived of as an unconditioned response to model distress. As in the standard classical conditioning paradigm ... researchers have shown that the pairing of a previously neutral stimulus (the conditioned stimulus) with the model's distress results in the acquisition by the observer of a conditioned autonomic response to this stimulus; this has been called ... *the vicariously conditioned response*. (pp. 17-18)

Vaughan and Lanzetta (1981) posited that facial feedback elicited by observing facial displays of another person played a causal role in the empathic response (i.e., emotional contagion). To test this hypothesis, they essentially replicated one of the experiments in

Vaughan and Lanzetta (1980) and added an additional manipulation. In one condition, observers were instructed to inhibit facial mimicry of the subject's pain displays. In another, they were asked to pose (amplify) a pain expression whenever the subject was shocked. In the control condition, no instructions were given. Results not only confirmed those reported in Vaughan and Lanzetta (1980) but also showed that skin conductance responses varied with the instructions received. These results supported the causal role of facial mimicry as a mediator of the empathic response.

Dimberg and Öhman (1996) reviewed interpretations of results from studies based on conditioning to facial stimuli. They concluded that results across studies overwhelmingly suggest that preparedness (Seligman, 1970) is the underlying mechanism which explains reactions to facial stimuli. However, they propose that Lanzetta and Orr (1986) demonstrated a departure from the preparedness hypothesis by suggesting that the effect was due to performance rather than learning. Specifically, Lanzetta and Orr (1986) argued that facial displays of fear enhanced emotional responses independently of conditioning and expectations of aversive outcomes. In other words, Lanzetta and Orr's (1986) interpretation "simply says that once some aversive emotional state is activated (with or without previous conditioning training of some components of the stimulus), then facial displays of anger and fear enhance this state" (Dimberg & Öhman, 1996, p. 175). Moreover, Dimberg and Öhman (1996) seem to downplay the suggestion in Vaughan and Lanzetta (1981) as well as in Hatfield et al. (1992a, 1994) that mimicry and feedback are involved in emotional contagion. However, they do not dismiss the occurrence of primitive emotional contagion as an explanatory mechanism for reactions to facial expressions. They state that:

> [t]hese results support the hypothesis that subjects have a readiness to spontaneously react emotionally to different facial expressions. However, an alternate way to interpret the findings is that facial reaction is an outcome of mimicking behavior, without any necessary emotional concomitants. Data against this interpretation was obtained by Dimberg (1988b) who found that distinguished facial reactions to faces were accompanied by a corresponding self-report of emotion. Angry faces evoked more fear than happy faces, whereas happy faces induced feelings of happiness. These findings were extended by Lundquist and Dimberg (1995) who exposed subjects to faces portraying anger, happiness, fear, sadness, disgust, and surprise while facial-EMG activity was measured from several different facial muscle regions.

> This study showed that subjects tended to react with a facial reaction which to some degree mirrored the facial expression which they were exposed to. Importantly, however, these reactions were accompanied by a corresponding self-report of emotion indicating that the facial-EMG reactions had experienced emotional concomitants. These data were further interpreted as support for that facial expressions of emotions are contagious (Hatfield, Cacioppo, & Rapson, 1994; Lundquist & Dimberg, 1995). (p. 172)

In a review of Lanzetta's work based on conditioning experiments, McHugo and Smith (1996) hold that both preparedness and mimicry are suggested as mechanisms which may explain emotional reactions to emotional displays. They state that:

> [n]ot only are facial expressions prepotent stimuli that we are prepared to interpret in particular ways, but these signals have the power to evoke emotional reactions in those who observe them. Often, the instigated responses are highly similar to the emotions represented in the observed displays, and thus represent empathic responses. Moreover, the results in Vaughan and Lanzetta (1981) implicate a causal role for facial activity in eliciting the empathic response, and thus suggest that mimicry of others' facial displays may provide the basis for a direct, nonverbal channel of emotional communication ... (p. 111)

Elsewhere, Smith et al. (1996) suggest that preparedness appears more consistent with findings which involve fear and anger expressions. Functional perspectives on these basic emotions are suggested by various authors (e.g., Izard, 1977; Lazarus, 1991a; Tomkins, 1963). Fear typically arises in response to threat; and anger in response to perceived provocation. Smith et al. (1996) hold to the signal function of these emotions and state that: "[t]hus, observing an expression of anger often serves as a threat, because it indicates the likelihood of aggression" (p. 238). They go on to say that:

> [v]iewing the signals conveyed by various facial expressions from a functional perspective also helps to make sense of the asymmetries that were observed in the conditioning of happy versus fearful or angry facial expressions. Across studies there have been indications that facial signals of threat are difficult to ignore or to discount in a way that is not true of the safety signals that happy expressions are hypothesized to convey. For instance, both Lanzetta and Orr (1980, 1981; Orr & Lanzetta, 1980) and Öhman and Dimberg (1978) ... have found that it is more difficult to condition a happy facial expression than an angry or fearful one to signal danger or threat .... This asymmetry makes sense, because the maladaptive consequences of failing to detect the presence of threat often far outweigh those of failing to detect that one's environment is, for the moment, safe ... (pp. 238-239)

In essence, conditioning studies indicate that facial expressions represent effective emotional stimuli and point to preparedness and/or mimicry as an underlying mechanism in generating reactions to these displays in others. Another group of studies which has investigated whether people have a readiness to respond to facial expressions was not based on any use of classical conditioning or reinforcement contingencies. More simply, these studies have relied on measures of how people reacted when exposed to facial expressions. In fact, these studies have relied on combinations of indicators especially in situations where self-report or ANS measures were used (e.g., Bush, Barr, McHugo, & Lanzetta, 1989; Dimberg, 1982, 1986, 1988b, 1990a; Hsee et al., 1990; McHugo, Lanzetta, & Bush, 1991). Many of these studies have used measures of the facial-expressive system such as electromyography (EMG) of the face muscles during facial-expressive reactions to stimuli (e.g., photographic stills of facial expressions) combined with ANS activity and/or self-report (Bush et al., 1989; Dimberg, 1982; Dimberg, 1988b; Dimberg & Christmanson, 1991; Dimberg & Lundquist, 1990; Lundquist & Dimberg, 1995). These studies have generally demonstrated that spontaneous (involuntary) facial reactions to facial expressions do occur. The level of concordance of ANS activity indicators with behavioral (EMG activity) and/or self-report measures of emotion has nevertheless been deemed ambiguous[54] (Dimberg, 1990a). Other studies have made use of subjects' facial expression ratings by trained judges combined with self-report assessments of internal states (e.g., Hatfield, Hsee, Costello, Weisman, & Denney,1995; Hsee, Hatfield, Carlson, & Chemtob, 1990). They have also demonstrated that contagion effects do occur according to both forms of measurement.

Dimberg (1982) exposed subjects to photographic stills of happy or angry faces and simultaneously measured EMG reactions along the *corrugator supercilii* muscle (i.e., typically contracted in frowning and associated with negative emotional displays) and *zygomatic major* muscle (i.e., typically contracted in smiling and correlated with positive emotional displays). Results suggested that the different stimuli evoked differing

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[54] In other work, the three response components of emotion have also been found not to be perfectly correlated (see Lang, 1978, 1988; Leventhal & Scherer, 1987; Lewicki, 1986; Öhman, 1986; Parrott & Hertel, 1999). Among assessments of the three response components, Dimberg (1990a) is especially perplexed with ANS activity measures.

spontaneous response patterns. Specifically, exposure to angry faces generated increased corrugator activity whereas exposure to happy faces resulted in increased zygomatic muscle activity. This suggested that the emotions of the sender were being reflected by the receiver. Dimberg (1982) reasoned that this reaction was due to a prewired system designed to respond to facial expressions of emotion. This view is congruent with Darwinian precepts and does not generally address mimicry and feedback as a mechanism of contagion as proposed in Hatfield et al. (1992a, 1994). However, the facial EMG readouts congruent with the emotion expressed in a stimulus can be simply interpreted as indicative of mimicry without emotional concomitants. For this reason, additional studies were carried out. Dimberg (1986b; Dimberg & Thell, 1988) used fear-relevant (slides of snakes) and fear-irrelevant (slides of flowers) stimuli. It was argued that evolution has rendered subjects biased to spontaneously respond to many forms of fear-relevant stimuli and that by not using facial stimuli, this would avoid potential mimicry as a response. EMG results indicated that the fear-relevant stimuli evoked a response indicative of negative affect (i.e., increased corrugator activity) whereas the fear-irrelevant stimuli generated a response typically associated with positive affect (i.e., increased zygomatic activity). The type of stimuli that were used clearly eliminated any possibility of mimicry however a response indicative of a facial emotional reaction was apparent. Dimberg (1990a) reported similar results with positive and negative environmental stimuli (e.g., preferred and non-preferred landscapes). The speed with which emotional reactions to facial expressions occurred was investigated in Dimberg (1991) with EMG activity. It was found that spontaneous facial reactions to facial stimuli occurred "as early as 300 ms after stimulus onset" (p. 173). These results echo other findings where pre-attentive (unconscious) exposure to a stimulus resulted in a very rapid emotional reaction (see Öhman, 1999).

Research on nonverbal communication appears to suggest that women are more expressive than men (e.g., Buck, Savin, Miller, & Caul, 1972; Schwartz, Brown, & Ahern, 1980). Dimberg and Lundquist (1990) investigated whether the gender of the person expressing facial emotion would influence the expressive reactions of subjects. It was found that the facial expressions of females were not more effective than those of males in evoking

distinct EMG activity in subjects. In other words, the gender of the sender does not seem to play a role in eliciting emotional reactions in observers. On the other hand, gender differences in reactions to emotional stimuli have been reported (Dimberg, 1990a; Dimberg & Lundquist, 1988). For instance, Dimberg and Lundquist (1988) found that women displayed stronger EMG response patterns than males when exposed to both angry and happy stimuli.

In a series of experiments, Lanzetta and his colleagues (Bush et al., 1989; Lanzetta & Englis, 1989; McHugo, Lanzetta, & Bush, 1991; McHugo et al., 1985; Vaughan & Lanzetta, 1980, 1981) clearly showed that being exposed to the emotional displays of another could result in similar displays in the observer. Moreover, levels of autonomic arousal (activation - relaxation) were consistent in observers with the emotion that they observed. Thus, this work generally indicated that the mere viewing of another person's emotional displays was sufficient to cause an analogous emotional reaction in the observer. For instance, McHugo et al. (1985) exposed subjects to video excerpts of President Reagan expressing happiness/reassurance, fear/evasion, or anger/threat. On recall of their reactions, supporters and opponents of Reagan claimed to have had different reactions to the President's emotional displays. Supporters claimed to have shared his happiness and that they felt unhappy when the president displayed fear or anger whereas opponents said that their reactions were negative to all of Reagan's displays. However, the viewers' automatic reactions indicated that both supporters and opponents mimicked Reagan's displays and ANS indicators showed that the subjects exhibited responses associated with tension when exposed to angry or fearful expressions whereas happy expressions resulted in relaxation according to ANS indicators. Thus physiological indicators suggested that prior attitude did not impact the contagion effect.

Bush et al. (1989) also suggested that mimicry resulted in emotional states in subjects and these states were congruent with that expressed in stimuli. A within-subject and a between-subject manipulation was used. The within-subjects manipulation consisted in exposing subjects to one of two videotaped comedy routines. One vignette was dubbed to include brief close-up inserts of laughing/smiling audience members whereas the other was

not. In the between-subject manipulation, half of the subjects were instructed to consciously inhibit facial action and the other half were allowed to respond spontaneously. It was hypothesized that the subjects in the spontaneous response condition who were also exposed to the dubbed vignette would show increased levels of mimicry (more smiling) which would, in turn, increase their level of self-reported amusement. On the other hand, it was anticipated that subjects instructed to inhibit mimicry would report lower levels of amusement than those in the spontaneous condition and show no difference in reported amusement between the dubbed and undubbed video vignettes. Electromyography of the cheek and eye muscles suggested that the subjects who were instructed to inhibit facial action showed lower levels of facial activity associated with smiling than the subjects who were allowed to smile spontaneously. In addition, the subjects in the inhibit condition did not smile significantly more in response to the dubbed and undubbed versions of the video. Conversely, subjects in the spontaneous facial action condition smiled significantly more in response to the dubbed videos than to the undubbed videos. Although EMG results suggested that the hypotheses were confirmed, subjects' self-reports painted a somewhat different picture. In particular, similar levels of amusement were reported to the dubbed routine by subjects in the inhibition and spontaneous conditions although the subjects in the inhibition condition had smiled considerably less. This was taken to suggest that not one's level of mimicry but rather the affective stimulus was a major determinant of subjective emotional state. Subjects in the inhibition condition reported no difference in levels of amusement to the dubbed and undubbed condition. Subjects in the spontaneous condition rated the dubbed routine as significantly more amusing than the dubbed routine in the inhibition condition and the undubbed routine in the spontaneous condition.

Most researchers have typically assumed that vicariously instigated emotion will be congruent with the actor's emotional state (Lanzetta & Englis, 1989). However, various studies have demonstrated that empathic responses are usually observed toward liked persons and counterempathic responses (joy at expressions of pain) occur toward disliked persons (e.g., Bramel, Taub, & Blum, 1968; Zillman & Cantor, 1977). Englis, Vaughan, and Lanzetta (1982) state that:

> in many if not most cases, an observer will respond to a model's affective display with a similar emotion. At the same time, however, the analysis suggests that particular conditioning experiences and/or some situations will promote counter-empathic emotional responses. (p. 378)

In their investigation of counterempathic responses, Englis et al. (1982) demonstrated the occurrence of these responses with respect to an *Asymmetry group* over acquisition trials. The Asymmetry condition consisted in first exposing subjects to a model's smiles or expressions of pain which were then followed by an incongruent outcome (e.g., model's smile was followed by an outcome consisting in "losing" and an electric shock for the observer/subject). This Asymmetry pairing was presumed to lead to a decrease in empathic response and to acquisition of counterempathic responses. Results indicated that counterempathy appeared in conditions where expressive displays of others predicted negative outcomes for the observer. They state that:

> [o]n the initial trials of Acquisition the Symmetry and Asymmetry groups did not differ in their reactions to the model's expressive displays; both groups responded empathetically. Over Acquisition trials, however, the Asymmetry group's responses to the model's pain and pleasure expressions became increasingly similar or, in some cases, even reversed, suggesting extinction of the initial pattern of empathetic and conditioning of particular components of a counter-empathetic response pattern. In contrast, the Symmetry group's responses to the model's pleasure and pain increasingly diverged in directions indicative of stronger empathetic reactions. (p. 389)

Elsewhere, Lanzetta and Englis (1989) reasoned that competitive rather than cooperative situations should provide a forum for the occurrence of counterempathic responses. Initially, the researchers manipulated subjects' expectations with respect to whether an upcoming social situation would be competitive or cooperative. Results confirmed the hypotheses. In the cooperative situation, subjects manifested congruent empathic responses. On the other hand, competitive situations resulted in counterempathic responses.

The work of Lanzetta and Dimberg was not especially concerned with emotional contagion. Rather, they took a broader view and investigated emotional reactions to a variety of stimuli most of which were facial expressions of emotion. In these works, contagion via mimicry and feedback emerges as one of many explanations for reactions to facial stimuli.

On the other hand, Hatfield and her associates (Hatfield et al., 1992a, b, 1994, 1995; Hsee et al., 1990; Hsee et al., 1992; Uchino et al., 1991) have focused on this type of contagion and have consistently reported primitive emotional contagion effects in subjects. The theoretical underpinnings of these studies is different from that which underlies the works of Lanzetta and Dimberg. Hatfield and her associates have repeatedly maintained that although contagion may be multiply determined, the mechanism which they favor rests on mimicry and feedback (Hatfield et al., 1992a, 1994). This clearly deviates especially from the position of Dimberg who has generally maintained that preparedness (Seligman, 1970) is the underlying mechanism of contagion effects in particular and of emotional reactions to facial stimuli in general (see Dimberg, 1988b, 1990a; Lundquist & Dimberg, 1995; Dimberg & Öhman, 1996).

A point that is worth bringing up is that when one reads through the research of Dimberg and Lanzetta, one senses a strong preoccupation with methodological rigor and a methodological orientation that is clearly designed to demonstrate that preparedness or mimicry is the underlying mechanism of facial reactions to stimuli. On the other hand, the work of Hatfield and her associates does not directly address the underlying mechanism of contagion although they vehemently argue that it is based on mimicry and feedback (see Hatfield et al., 1992a, 1994). In other words, their work on mimicry and feedback as the mechanism is by and large conceptual. However, that of Dimberg on preparedness and that of Lanzetta on preparedness and mimicry is by and large empirical and process-oriented. In addition, one can clearly see that the measurement methods that were used by Hatfield were not as rigorous as those which Dimberg and Lanzetta have repeatedly used (i.e., combinations of EMG and ANS activity measures along with self-reports). Hatfield's work is based on methodology which has continually consisted in two different types of ratings. The first was based on judges' ratings of subjects' facial expressions on categorical scales and the second consisted in self-reports by subjects on very similar scales. Moreover, it is important to note that feedback is not necessary for emotional experience (see Hatfield et al., 1992b; Fridlund, 1994; McIntosh, 1996). This appears to further undermine the validity of proposed mechanism of primitive emotional contagion. On the other hand, mixed findings

which in some cases suggest preparedness and in others point to a mechanism which involves mimicry and perhaps feedback reinforce the claim that emotional contagion is multiply determined and that primitive emotional contagion is but one form of the phenomenon (see Hatfield et al., 1994).

5.4 Conscious and Unconscious Emotional Processes

James (1884, 1890) emphasized conscious psychological activity. Accordingly, he argued that emotion was *feeling*[55]. Some contemporary researchers of emotion also view a subjective feeling state as a necessary condition for emotion (e.g., Clore, Schwarz, & Conway, 1993). This perspective generally does not allow for unconscious emotions (Clore, 1994) and involves a focus on the conscious or phenomenological content of an emotional experience (LeDoux, 1996; Öhman, 1999). The term *emotion* has typically been relegated to the conscious realm. The prefix -e- in the word *emotion* is derivative of *to be* which, in turn, refers to self-awareness (Marcus, 1991). Nevertheless, this does not imply that the processes which lead to a feeling state such as appraisals (perception) must necessarily be conscious (see Arnold, 1960).

Over the 1970s and 1980s, it became evident that some information processing was unconscious or implicit or automatic (unintentional) (see Dixon, 1981; Erdelyi, 1974; Kihlstrom, 1987; Schneider, Dumais, & Schiffrin, 1984; Shiffrin & Schneider, 1977; Uleman & Bargh, 1989; Zajonc, 1980). More recent research continues to indicate the existence of such functioning (see Bargh, 1992, 1994, 1996, 1997; Kunda, 1999; Merikle, 1992; Wegner & Bargh, 1998). Kunda (1999) states that:

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55 This view appears in contrast to perspectives which regard emotion as a complex or multicomponent response (e.g., Averill, 1980c; Izard, 1977, 1991; Lang, 1988; Leventhal, 1984; Scherer, 1984a, 1988a; Parrott & Hertel, 1999) and where subjective feeling is viewed as having objective correlates (e.g., expressive gestures, physiological responses, etc.). Öhman (1999) states that: "[i]n the more popular version, it is interpreted as providing means of operationalizing the emotion in order to allow its scientific study. Thus, the feeling, in this view is isomorphic with a hypothetical inner state constituting the 'real emotion' (e.g., Izard, 1991). Emotional ratings, psychophysiological responses, expressive gestures and overt behaviors then provide alternative operational routes to studying the state. In an alternative version, however, the different components would simply be seen as parallel, and easily dissociable, outflows from a centrally organized emotional response (Lang, 1978). For example, fear seems to be organized by a neural network centered on the Amygdala, and providing efferent outflows to midbrain and brain stem regions controlling different aspects of the manifest fear response (e.g., , 1992; 1996)" (p. 335).

> Much of the social pyschological research carried out up to the mid 1970s assumed, explicitly or implicitly, that people were aware of the cognitive processes underlying their judgments and behavior and were capable of monitoring and controlling these processes. That has changed. Once cognitive psychologists began questioning these assumptions, social psychologists were quickly to follow. By the late 1980s, it had become clear that a wide variety of mental processes could be carried out with little awareness or intention .... (p. 255)

Furthermore, the modern view on unconscious processing deviates form the classical Freudian perspective which suggests active repression. Alternatively, recent findings have revealed that human cognitive and affective structures simply do not provide introspective access to many processes and hence, individuals are unable to monitor and control the execution of these processes (see Kihlstrom, 1987). Schneider et al. (1984) provided many distinctions between automatic processes and those which require attentional control (see also Shiffrin & Schneider, 1977). They appear in Table 3. *Automatic processes* typically occur outside of awareness, are carried out unintentionally, are uncontrollable in that it is difficult or impossible to arrest them once they are triggered, and appear highly efficient in that they do not require many cognitive resources and may occur in parallel with other processes. On the other hand, *controlled processes* are generally carried out intentionally and with awareness, remain controllable and can be monitored, require effort, and may be disrupted if resources are insufficient.

Nisbett and Wilson (1977) hold that if a stimulus is noticed only momentarily but yet sufficiently to subsequently be remembered, the observer is assumed to be aware of the stimulus s/he was exposed to. This constitutes *attentive processing*. On the other hand, the notion of *pre-attentive processing* suggests that such a stimulus is perceived but remains consciously unnoticed. This type of processing is presumed to underlie subliminal perception (see Kihlstrom, 1987; Merikle, 1992). *Backward masking* is a method used to operationally separate pre-attentive, automatic processing from controlled, conscious processing (Marcel, 1983). For instance, Öhman and Soares (1994) first screened subjects with respect to whether they feared snakes or spiders. Next, subjects were very briefly (30 ms) exposed to pictures of snakes, spiders, flowers, and mushrooms. Each stimulus was immediately followed by a 100 ms masking stimulus. Results indicated that although the subjects were unable to

Table 3

Characteristics of Automatic and Controlled Information Processing

Characteristic	Automatic processing	Controlled processing
Cognitive resources	Independent	Heavily dependent
Intentional control	Incomplete	Complete
Attention	Not required, may be called	Required
Effort	Little, if any	Much
Serial-parallel dependence	Parallel	Serial
Awareness	Little, if any	High
Indivisibility	Wholistic	Fragmentized
Storage in long-term memory	Little, if any	Large amounts
Performance level	High	Low, except for simple tasks
Practice	Gradual improvement	Little effect
Modification	Difficult	Easy

Source: Adapted from Schneider, Dumais, and Schiffrin, (1984)

consciously recognize (discriminate) the pictures of the fearful stimulus from the other stimuli, skin conductance responses (SCRs) indicated that subjects showed enhanced sympathetic responding when exposed to the stimulus they feared. Self-report ratings converged with the SCRs. Thus, although they were unaware of having been exposed to a fearful masked stimulus, their response was indicative of fear. Masking studies of anger stimuli have yielded similar results. Dimberg and Öhman (1996) state that: "masking studies suggest that facial displays exert most (if not all) of their effect on the receiver virtually instantaneously at onset" (p. 176). They add that:

> [t]his means that emotional responses to facial stimuli may be initiated independently of conscious awareness. Thus, we may react to inconspicuous facial cues from a person and this emotionally colored response may determine our feeling of liking or disliking for him or her regardless of our conscious thoughts. Even more dramatic, the speed of facial muscle responses to facial displays documented by Dimberg (1991, 1994, ...) suggests that we automatically may respond to the facial display without conscious awareness that we have perceived the display in the first place. Thus, the results we have reviewed suggest that long sequences of interactions between people may be partly determined by nonconscious perceptions and automatic responses on the part of the sender and the receiver. (pp. 176-177)

Failures of attention (e.g., Greenwald, Klinger, & Schuh, 1994) and failures of memory/recall (e.g., Jacoby, Yonellinas, & Jennings, 1997) represent two different avenues to unconscious psychological phenomena (Öhman, 1999; see also Kunda, 1999). Emotional contagion appears to involve unconscious awareness and to therefore occur in an automatic fashion in that the affective stimuli emitted by the actor are processed outside of consciousness in the target or observer of those displays and without intent. Öhman (1999) states that: "in some situations, such as social interactions, rapidly passing stimuli in the form of individual facial gestures may not be consciously appraised, yet elicit emotional responses related to fear such as submissiveness and uncertainty" (p. 343). In fact, many researchers have held that much of the processing of the emotional cues emitted by others is unconscious (Dimberg & Öhman, 1996; Esteves, Dimberg, & Öhman, 1994; Lanzetta & Orr, 1986; McHugo et al., 1985; Öhman, 1988, 1999; Posner & Snyder, 1975; Vaughan & Lanzetta, 1980, 1981). Esteves et al. (1994) suggest that not only are reactions to affective stimuli automatic (unintentional) but also that reactions occur before stimuli are perceived

consciously (see also Dimberg & Öhman, 1996). This appears especially so in the case of fear and anger stimuli (Smith et al., 1996).

The results of vicarious conditioning experiments reported for instance in Vaughan and Lanzetta (1980) point to contagion evidenced in the facial displays of an observer. If cognition is defined as simple and immediate perceptual knowledge, then these results point to the very low involvement of cognition in this process. If cognition is likened to the complex information processing that occurs in a computer (e.g., Zajonc, 1980, 1984), then they may be viewed as non-cognitive (see also Cornelius, 1996). When these results are coupled with recently proposed mechanisms by which facial feedback can lead to the experience of emotion, it becomes evident that the processes which link facial displays and internal feeling states may not require cognitive mediation. This appears evident in the Vascular Theory of Emotional Efference (VTEE) proposed by Zajonc and associates (Zajonc & McIntosh, 1992; Zajonc et al., 1989, 1993) where venal blood flow in the cavernous sinus can influence brain temperature. Accordingly, facial expressions which facilitate nasal breathing result in cooling of the brain which is assumed to be hedonically positive whereas those which augment brain temperature are presumed to result in negative affective states. In one study, Zajonc et al. (1989) asked subjects to repeatedly produce a scowl by voicing the vowel *ü*. This apparently resulted in decreasing the amount of air inhaled through the nose and a consequent increase in brain temperature which, in turn, resulted in negative affect. This perspective leaves very little room for the operation of cognitive factors such as conscious or unconscious appraisals and emphasizes biophysical processes in the generation of an emotional experience. Accordingly, some evidence gathered from facial feedback research appears to indicate that completely cognitive theories of emotion are less tenable and plausible (Berkowitz & Devine, 1995). On the other hand, when the route from facial displays to felt emotion is specified with explanations based on dramaturgy (Fridlund, 1994) or self-perception (Duclos et al., 1989), then higher levels of cognitive involvement (as more complex information processing) may be presumed in the generation of an emotional state via feedback.

Higher levels of cognitive involvement also appear in Lanzetta's work on

counterempathic responses. This is especially evident in Lanzetta and Englis (1989) where it was found that expectation of competition was sufficient to elicit a counterempathic response. Expectations are cognitive in nature (Wilson & Klaaren, 1992). Hence, complex cognitive intervention appears to modify or interfere with the process which naturally leads to matched emotional states.

Objective and subjective attentional criteria have been proposed for assessing consciousness (Bowers, 1984; Öhman, 1999). The use of an objective criterion appears in Zajonc's *mere exposure effect* experiments (see Zajonc, 1980) where unconscious processing was demonstrated when stimuli yielded chance-level identification performance (after multiple trials) but were also shown to reliably affect another psychological measure. This procedure sought to dissociate the perceptual from the emotional impact of a stimulus. Variations of this procedure appear in other attempts at demonstrating that emotional activation does not require complete perceptual analysis of the stimulus object (e.g., Öhman & Soares, 1994). Nevertheless, this general procedure and its underlying definition of consciousness carry some disadvantages. For instance, Bowers (1984) suggested that this objective definition of consciousness can easily result in the decision to exclude all unconscious effects if discrimination of a stimulus appeared consciously mediated. This is further compounded by the limitations of perceptual measures in that they are not sensitive (a) exclusively to consciously mediated effects (exclusiveness criterion) and (b) to all types of conscious effects (exhaustiveness criterion) (see Merikle, 1992; Merikle & Reingold, 1992). In other words, these measures appear to lack construct validity (for a review of construct validity, see Bagozzi, 1994a).

Bowers (1984) suggested a distinction between *noticing* and *perceiving*. The former refers to an introspective awareness of perceiving whereas the latter implies that stimuli may be perceived without entering into consciousness. Bowers (1984) further argued that the processes which are conscious must involve a phenomenological quality. This provided a subjective criterion for assessing consciousness. He states that: "[t]he rough and ready criterion for ... consciousness is that a person be able to *identify* specific features from an indeterminately large set of them" (p. 235). Some studies have suggested that a subjective

threshold for consciousness was a satisfactory manner by which conscious and unconscious phenomena may be delineated (e.g., Cheesman & Merickle, 1984, 1986).

5.5 Relations Among Expressive, Experiential, and Physiological Components of Emotion

The expressive, experiential, and physiological aspects of emotion (see Figure 7) have been measured in studies of reactions to facial stimuli (see Dimberg, 1990a). An important issue in this area rests in whether these components are somehow interrelated. In turn, this would suggest the importance of the convergence or correspondence of measures assessing different response components in studies of emotional contagion.

Parrott and Hertel (1999) have suggested that the three measurable aspects of emotion are "not components of a coherent emotion construct and correlate only imperfectly" (p. 71). Lang (1988) viewed these aspects as separate response systems or levels of processing which are not closely related (see also Lewicki, 1986; MacLean,1975; Scherer & Leventhal, 1987). Moreover, many authors have suggested that none of the observed indices of emotion are necessary or sufficient for an emotional experience to occur (e.g., Averill, 1980b; Fischer, Shaver, & Carnochan, 1990; Öhman, 1986).

If facial reaction measured via EMG activity is related to the two other components, then it should be possible to detect corresponding changes in those components of the emotion system. Dimberg and Thell (1988) assessed whether antecedent appraisal of the stimuli was consistent with EMG reactions. They found that stimuli rated as unpleasant (slides of snakes) also generated EMG activity indicative of a negative emotional reaction whereas the stimuli that were deemed pleasant resulted in EMG activity typically associated with a positive emotional reaction. Additional studies point to unpleasantness/pleasantness ratings of stimuli and corresponding EMG activity (Cacioppo, Petty, Losch, & Kim, 1986; Dimberg, 1988c, 1990c).

That felt emotional experience and spontaneous facial activity are related is indicated in some studies (e.g., Dimberg, 1988b; Ekman et al., 1980; Hatfield et al., 1995; Hsee et al., 1990; Lundquist & Dimberg, 1995; McCanne & Anderson, 1986). In Dimberg (1988b), subjects were asked to rate their internal feeling state on multiple scales after being exposed

to happy and angry faces. The categorical scales assessed the following basic emotions: *happiness*, *fear*, *anger*, *interest*, and *surprise*. Results indicated that consistent with their facial reactions, subjects reported feeling significantly more happy after exposure to happy faces whereas significantly greater levels of fear were reported after exposure to angry faces. McHugo et al. (1991) exposed subjects to two types of positive displays which varied in intensity (mild and intense). They argue that:

> [i]f subjects report stronger positive reactions and show more zygomatic EMG activity to intense happiness/reassurance displays than to mild happiness/reassurance displays, then the case would have been made stronger for a positive covariation between facial actions and subjective experience. Alternatively, if there is a decoupling between facial actions and self-reports, then the favored interpretation would be that at least part of the facial responses are driven by motor mimicry that is devoid of affective impact on subjective experience. (p. 25)

Results showed that: "display effects were ... robust and reliable for both self-report and facial EMG responses" (p. 38). This was taken to indicate that facial displays are "potent emotional stimuli" (p. 38). They add that:

> the display effects point ... to the correspondence between reports of subjective emotional experience and facial muscle actions, despite large differences among subjects in attitudinal predisposition. In conditions where subjects reported more positive emotion, there was more zygomatic region activity, and when subjects reported more negative emotion, there was more corrugator region activity. The relationship between zygomatic activity and reported joy in response to the two intensities of happiness/reassurance displays further supports the link between facial expression and the subjective experience of emotion. Nevertheless, correlations *within* a display condition between levels of activity in the zygomatic region and self-reports of joy account for only modest amounts of variance (10 - 20%), suggesting considerable individual variation in the coupling between the two systems. (p. 38)

Hatfield and her associates (e.g., Hatfield et al., 1995; Hsee et al. 1990; Hsee et al., 1992; Uchino et al., 1991) have consistently used judges' ratings of subjects' videotaped facial expressions of emotion while subjects were exposed to affective stimuli along with retrospective ratings (self-reports) provided by subjects with respect to their internal feeling states while exposed to a stimulus condition. Self-reports were based on categorical scales which assessed how happy and sad subjects had felt. For example, one item consisted in the following question: "How strong a happiness (sadness) did you experience when you

watched your partner describe his happy (sad) event?" (See Hsee et al., 1990, p. 333). The scale ranged from 0 (*Nothing at All*) to 10 (*Extremely Strong*). Essentially, this type of scale measures the intensity of a categorical emotional state. To assess the videotaped emotional states of subjects, judges were asked to provide ratings on variants of these categorical scales. Both measures (self-reports of internal states and judges' ratings of facial expressive behavior) have tended to converge across these studies and have demonstrated that when a subject was exposed to a valenced affective stimulus, the induced affective state tended to mirror the state in the stimulus condition with respect to both indicators.

Relations between measures of facial activity and autonomic responses are less clear (for reviews, see Buck, 1980; Manstead, 1988). In some cases, congruence between facial activity and autonomic activity is indicated when voluntary facial action was engaged in (e.g., Ekman, Levenson, & Friesen, 1983). Studies which have examined spontaneous facial action in relation to skin conductance and heart rate have tended to suggest ambiguous results. Dimberg (1990a) argues that a clear relationship was apparent across studies where "more *discomfort* was introduced" (p. 488). For instance, Dimberg (1982) reported that although stimuli achieved their intended impact on facial EMG activity, changes in ANS indicators (skin conductance and heart rate deceleration) were similar when subjects were exposed to angry or happy facial stimuli. On the other hand, when Dimberg (1986) exposed subjects to either fear-relevant (snakes) or fear-irrelevant (flowers) stimuli, he found that expected facial EMG activity was in each case accompanied by corresponding changes in ANS activity.

To conclude, it appears that across studies, a fairly reliable convergence of facial expressive behavior measures and self-report measures emerges. Results with respect to the convergence of ANS activity measures with measures of the other two components is at best ambiguous as suggested in Dimberg (1990a).

CHAPTER 6

SERVICE ENCOUNTERS AS EMOTION SYSTEMS

Several unique characteristics distinguish services from products and point to the experiential qualities of service and the interactional and interpersonal nature of service delivery (Bowen et al., 1990). Services are primarily deeds or activities rather than things (Grönroos, 1990). Thus, they are intangible. Consumers acquire from services something that is immaterial (Zeithaml & Bitner, 1996). Services, unlike products, therefore "possess few search qualities and many experience qualities" (Zeithaml, 1981, p. 186). Consequently, a consumer of services may lack a set of product-related expectations upon which to base evaluation (Smith & Houston, 1983). Secondly, services are consumed as they are produced and sold (Grönroos, 1990; Gummesson, 1991). One may therefore not inventory a service (Zeithaml, 1981) or export a service (Normann, 1984). Thirdly, both service personnel and customers require direct contact and both participate in the production of services (Chase & Tansik, 1983). Both are involved in the *service encounter* (Bateson & Hui, 1992; Grönroos, 1990; Mason, Mayer, Ezell, Laroche, & McDougall, 1997; Zeithaml & Bitner, 1996). Grönroos (1990) has proposed that interactions during the service encounter include a series of *moments of truth* between customer and service provider.

From the provider's point of view, these characteristics result in a reduced ability to control the experiential aspects of services (Grönroos, 1990) and thus place a premium on the behavior of front-line service providers (Ashforth & Humphrey, 1993). This realization has forced many companies to attempt to "manipulate the context of these experiences, in the hope that it will affect the experiences themselves" (Rafaeli, 1993, p. 177). Such efforts imply and acknowledge that the evaluation of services occurs while the service is delivered and place the behavior of service employees within the factors that greatly determine the evaluation of services (Bowen & Schneider, 1985, 1988). Positive emotional displays are behaviors which typically underlie the delivery of friendly, courteous, or personalized service (Hochschild, 1983a). Conversely, a lack of expressivity, the failure to regulate one's internal state, or the display of deviant (non-normative) emotions can have a dire effect on the encounter. The provider behaviors of which the customer is a target can result in a variety

of reactions which the services marketing literature places mostly within the realm of cognitive evaluation factors (see Oliver, 1996). It is argued herein that these reactions may also be affective. In fact, here we intend to place emotions at the forefront of the service encounter. That emotions are fundamental, all-important, and necessary in interaction is perhaps best captured in Metts and Bowers (1994) who state that:

> [e]motion is a fundamental, potent, and ubiquitous aspect of social life. Affective arousal forms a subtext underlying all interaction, giving it direction, intensity, and velocity as well as shaping communicative choices. Emotion is also one of the most consequential outcomes of interaction, framing the interpretation of messages, one's view of self and other, and one's understanding of the relationship that gave rise to the feeling. It is virtually impossible to encounter a day that is free of emotion .... (p. 508)

Similarly, Schwartz and Shaver (1987) hold that:

> [t]he dance of social interaction is a dance designed to encourage, elicit, avoid, mask, and feign feelings; the topics with which social psychologists are familiar - attitudes, altruism, aggression, self-presentation, conformity, obedience, and so on - are all tied to this dance of feelings. (p. 237)

We begin this chapter with an overview of service encounters and of the role of emotion in this context. This chapter culminates in the presentation of a model of the *emotion system of the service encounter*. This specification represents the ultimate goal of this chapter and uses the previous chapters as its building blocks. As such, it represents an integration of an interdisciplinary literature on emotion. In essence, emotion is presented as an intrapersonal and interpersonal phenomenon (Parkinson, 1996). The proposed model is partly based on four categories of emotional displays of the service provider and suggests that these displays can result in emotion in the consumer. Three distinct processes are suggested by which an emotional reaction can be generated in the consumer: (a) cognitive appraisal, (b) primitive emotional contagion, and (c) preparedness. By specifying differing ways by which an emotional reaction can occur in the consumer, the proposed model sets the stage for consumer emotion to be used as an independent variable in models of service evaluation. In addition, the model is dynamic in that feedback loops to the provider are specified and the model involves multi-level dialectics which in some instances are not rooted in a cognitive perspective implying conscious/attentive processing. That information can be processed in

an unconscious/pre-attentive and automatic manner is acknowledged by the inclusion of *preparedness* and *primitive emotional contagion* as mechanisms for consumer emotional responses to the affective displays of the service provider. The inclusion of primitive emotional contagion in the model provides it with a true dynamic quality which allows the model to surpass more simplistic and obvious treatments based strictly on stimulus-response formulations.

6.1 The Critical Role of Service Providers in the Service Encounter

Because services are usually consumed as they are produced, it is arduous to manage quality control and to engage in traditional marketing practices (Grönroos, 1990; Gummesson, 1991). Consequently, the consumer can only experience the service production and its results. Evaluations of the service are therefore often based on the 'visible activities' of the service provider (Grönroos, 1990). Crosby, Evans, and Cowles (1990) report that often, the service provider is "the primary - if not sole - contact point for the customer both before and after the purchase" (p. 68). They add that "[u]nder these conditions, the salesperson controls the level of *service quality* delivered" (p. 68). The important role of front-line service providers or boundary-spanning employees is also stressed in Bowen and Schneider (1985) who suggest that they "not only deliver and create the service but are actually a part of the service in the customer's view" (p. 129). They add that customers rely upon the behavior of such employees "as partial evidence in forming their perceptions of service (how it happened) and attitudes about service (how good it was)" (p. 129). Hence, contact employees offer cues to customers for the assessment of an otherwise ambiguous situation (Bitner, 1990).

The service encounter, or when the customer and service provider interact, is primarily a social encounter (Czepiel, 1990a). Zeithaml and Bitner (1996) state that: "[f]rom the customer's point of view, the most vivid impression of service occurs in the service encounter, or the 'moment of truth,' when the customer interacts with the service firm" (p. 105). Killeya and Armistead (1983) hold that "[t]he way in which this interface is handled is perhaps the essence of our understanding of the meaning of services" (p. 24). Accordingly, Bitner et al. (1990) state that: "[e]mpirical research in both service quality and service

satisfaction affirms the importance of the quality of customer/employee interactions in the assessment of overall quality and/or satisfaction with services" (p. 73). In sum, the various behaviors of the service provider during the service encounter appear to carry an impact on how the service encounter unfolds, shape a customer's experiences in an encounter with an organization, guide the evaluations of service, and consequently determine whether patronage will be continued in the future (Bitner, 1990; Bowen et al., 1990; Czepiel, Solomon, & Surprenant, 1985; Grönroos, 1990).

Service encounters are to be distinguished from service relationships. Service relationships involve repeated contact with the same provider whereas service encounters "occur when the customer interacts with a different provider each time" (Gutek, Bhappu, Liao-Troth, & Cherry, 1999, p. 218; see also Berry, 1995; Liljander & Strandvick, 1995). A somewhat broad definition of *service encounter* has appeared in Shostack (1985): "a period of time during which a consumer directly interacts with a service." This definition stresses all aspects of the service firm with which the customer interacts. Taking a somewhat different approach, Solomon et al. (1985) have limited the service encounter to role performances on the part of the service provider and the customer. Later, Surprenant and Solomon (1987) defined the service encounter as "the dyadic interaction between a customer and a service provider." A sociological role-theory perspective clearly pervades this position and engages a dramaturgical metaphor on the service encounter.

In the dramaturgical perspective, social performances have often been described as a product of learned episodic representations that are called *scripts* (Abelson 1976; Schank & Abelson, 1977). Consequently, the behavior of service providers and customers in the service encounter has been represented as a social performance which is largely scripted and thus involves role performances and expectations (e.g., Deighton, 1994; Smith & Houston, 1983; Solomon et al., 1985; Weatherly & Tansik, 1993). Abelson (1976) defined a *script* as "a coherent sequence of events expected by the individual involving him either as a participant or as an observer" (p. 33). Scripts represent abstracted summaries of similar and recurring events and thus contain information about role-appropriate behaviors in a variety of social contexts (Douglas, 1983). The development of scripts is typically based on the level

of knowledge one has acquired in a particular domain. Accordingly, individuals involved in scripted behavior have been characterized as *high domain knowledge* (people with a well developed script) and *low domain knowledge* (people with a poorly developed script) on the basis of their understanding of the principles which underlie a particular domain (e.g., Chiesi, Spilich, & Voss, 1979; Spilich, Vesonder, Chiesi, & Voss, 1979).

6.2 The Importance of Service Providers' Emotional Behavior in the Service Encounter

Like other forms of behavior, those which are designed to convey emotion have also been presented as scripted (Ashforth & Humphrey, 1993; Fischer, 1991; Hochschild, 1983a; Kitayama & Markus, 1994; Russell, 1997). For instance, Russell (1997) suggests that an emotion category such as anger involves a temporally-ordered sequence of occurrences which includes antecedent appraisals, physiological reactions, expressive reactions, etc. More generally, the notion that emotional behavior can be scripted addresses observed variability in emotion regulation across cultures and social contexts and thus involves such notions as *display rules*, *normative constraints*, and *socialization* (Fisher, 1991; Stein & Trabasso, 1992).

The notion that aspects of emotion can be regulated has also been applied to occupational settings. For instance, Hochschild, (1979, 1983a) argued that *feeling rules* guide emotional labor. Somewhat similarly, Rafaeli and Sutton (1989) noted that *display rules* (see Ekman & Friesen, 1969b) guide the emotional expressions of service providers. In accordance with this literature, Ashforth and Humphrey (1993) suggested that the *service script* not only includes information regarding the general behavior of service providers but also information about their emotional behavior. The particular importance of *emotional labor* to service encounters is closely tied to the distinguishing characteristics of services. Ashforth & Humphrey (1993) state that:

> [a]ccording to the services management literature, there are several reasons why the concept of emotional labor has particular relevance to service encounters .... First, front-line service personnel are situated at the organization-customer interface and, thus, represent the organization to customers .... Second, service transactions often involve face-to-face interactions between service agents and customers. Third, given the uncertainty created by customer participation in the service encounter, such

> encounters often have a dynamic and emergent quality. Fourth, the services rendered during an encounter are relatively intangible, thus making it difficult for customers to evaluate service quality. These four factors place a premium on the behavior of the service agent during the encounter. (p. 90)

Emotional labor is typically discussed in the context of high-contact service settings. Hochschild (1983a) suggests that jobs which involve emotional labor have the following characteristics: (a) voice and facial contact with the public; (b) the worker is required to produce an emotional state in the customer; and (c) the employer has some opportunity to exert control on the emotion-laden activities of frontline employees. Although her findings were generated in the context of the airline industry, Hochschild (1983a) proposes a generalization of her results:

> Though the flight attendant's job is no worse and in many ways better than other service jobs, it makes the worker more vulnerable to the social engineering of her emotional labor and reduces her control over that labor. Her problems, therefore, may be a sign of what is to come in other such jobs. (p. 9)

Many subsequent findings in management suggest the importance of front-line service providers' emotional displays to proper service delivery (e.g., Ashforth & Humphrey, 1993; Parkinson, 1991; Rafaeli, 1993; Rafaeli & Sutton, 1987, 1989, 1990; Sutton, 1991; Sutton & Rafaeli, 1988; Wharton, 1993). In general, these and other studies suggest that many occupations in the service industry require expressions of positive affect or good cheer (e.g., Rafaeli & Sutton, 1989; Sutton & Rafaeli, 1988, 1990) whereas others such as those of bill collectors, funeral home directors, and those which involve death telling require that negative affect or unpleasant emotions (e.g., sadness, grief, contempt, disgust, or anger) be expressed (Clark & LaBeff, 1982; Rafaeli & Sutton, 1991; Sutton, 1991).

Rafaeli and Sutton (1987, 1989, 1991) have suggested that the expression of emotion is a primordial aspect of the work role in service occupations. They proposed that (a) *the content of behavior* and (b) *the impact of behavior on a target person* are the two main dimensions which should be taken into account when considering emotional displays on the part of service providers. The *content* dimension involves the distinction between positive and negative behaviors. Generally, this dimension has emerged as one of obvious and fundamental import to emotion in dimensional studies (e.g., Bush, 1973; Davitz, 1969;

Ekman, Friesen, & Ellsworth, 1972; Feldman, 1995; Izard, 1972; Mehrabian & Russell, 1974a, b; Osgood, 1969; Mayer & Gaschke, 1988; Russell, 1979, 1980; Russell & Carroll, 1999a, b; Russell & Mehrabian, 1977; Russell & Pratt, 1980; Schlosberg, 1954; Solomon, 1954; Tucker, 1955; Watson & Tellegen, 1985; Wundt, 1905). *Impact*, the second dimension, involves the notion of *context* and is closely associated with the goals that underlie expression of emotion on the part of the employee. Accordingly, Rafaeli (1993) suggests that an emotion that is pleasant or unpleasant for the service provider may not be classified necessarily as positive or negative by the consumer. An example which reveals the importance of this dimension is the expression of negative emotion which provides support to the customer such as sadness reflected by a therapist or doctor after a trauma experienced by the client. The emotion is negative but will in all likelihood carry a positive impact (Rafaeli, 1993). This dimension clearly positions emotion as a social and interpersonal phenomenon. In psychology, more and more researchers have introduced *social context* into their frameworks (Buck, 1991a; Fridlund et al., 1990, 1992; Hoover-Dempsey, Plas, & Strudler Wallston, 1986; Jakobs et al., 1997; Labott, Martin, Eason, & Berkey, 1991; Manstead, 1991; Parkinson, 1995; Plas & Hoover-Dempsey, 1988; Way & Masters, 1996). The importance of factors related to social context consideration underlies much of the sociology of emotion (see Kemper, 1991, 1993) and social constructivist perspectives on emotion (see Averill, 1980a, b, c, 1982; Mandler, 1990, 1992).

Intensity of behavior and *diversity of behaviors* are two additional dimensions that are proposed in Rafaeli and Sutton's work. They help gauge the two main dimensions (Rafaeli, 1993). *Intensity of behavior* refers to the magnitude or strength of the expressed behavior and is positioned as independent of *content*, the primary dimension. Generally, *intensity* is often taken as synonymous with (Ellsworth, 1991; Smith & Ellsworth, 1987; Zajonc, 1998) or related to (Sonnemans & Fridja, 1995) *arousal* and has consistently emerged in many dimensional studies as the second most important component of affect (e.g., Izard, 1972; Russell, 1980; Shaver et al., 1987; Woodworth & Schlosberg, 1954). Intensity has been used to assess categorical emotional states (e.g., Alvarado, 1997; Larsen & Diener, 1985, 1987) and appears among the most salient aspects of an emotion

(Sonnemans & Fridja, 1995). The dimension labeled *diversity of behaviors* suggests the episodic nature of service encounters and thus introduces variation among categories of expressed behaviors. Reference to this dimension is especially apparent in Mars and Nicod (1984) who reported that waiters used a whole range of behaviors which expressed their positive and negative emotional states from extreme to moderate levels. This last dimension appears somewhat related to what Diener et al. (1985) have labeled *frequency*. A script unfolds over time. The notion of frequency therefore appears especially important when one is studying scripted behavior such as that which characterizes service encounters.

Rafaeli (1993) suggests that the selection of employees (e.g., with personality inventories), their socialization within the organization (learning of formal policies and training), customer expectations, and reward systems along with monitoring procedures combine to influence the behavior of customer-contact employees. This analysis clearly builds on the one proffered in Hochschild (1983a) which stresses selection, training, customer expectations, and compliance with organizational and occupational norms and rules as the determinant factors of emotional labor. A variety of organizations display strong tendencies to create a climate for service by training their employees (Schneider, 1990). For instance, this is a main theme at Disney who not only train their employees for a job but mainly for engaging in a "role" before customers (Tyler & Nathan, 1985). Customer expectations emerge as an important determinant because the customer participates in the delivery of service (Chase & Tansik, 1983; Zeithaml & Bitner, 1996). Moreover, these expectations are clearly manipulated and often enhanced beyond manageable or comfortable levels for employees by company communications (Hochschild, 1983a).

Furthermore, Rafaeli and Sutton (1989) suggest that *transaction defining cues* (e.g., crowding; temperature; waiting line queues; sex, status, and dress of the customer; etc.) indicate to the provider the type of transaction that is about to ensue and partly shape his/her behaviors (see also Mars & Nicod, 1984; Tansik, 1985). Transaction defining cues also carry an effect on customers who adjust their expectations to the situation accordingly. For instance, Rafaeli and Sutton (1988) found that in certain situations, an instant tacit agreement emerged between customers and employees with respect to transaction defining cues and the

normative constraints typically imposed on employees. Elsewhere, Sutton and Rafaeli (1988) reported that different expectations in customers were apparent in busy vs. slow stores. Specifically, they found that positive emotional displays were expected by customers in stores only when crowding was not apparent and the waiting lines were short. On the other hand, when the store was busy, observations suggested that a tacit agreement emerged between customers and employees in that neutral and fast-paced interactions were engaged in so that transactions could proceed in a more accommodating manner.

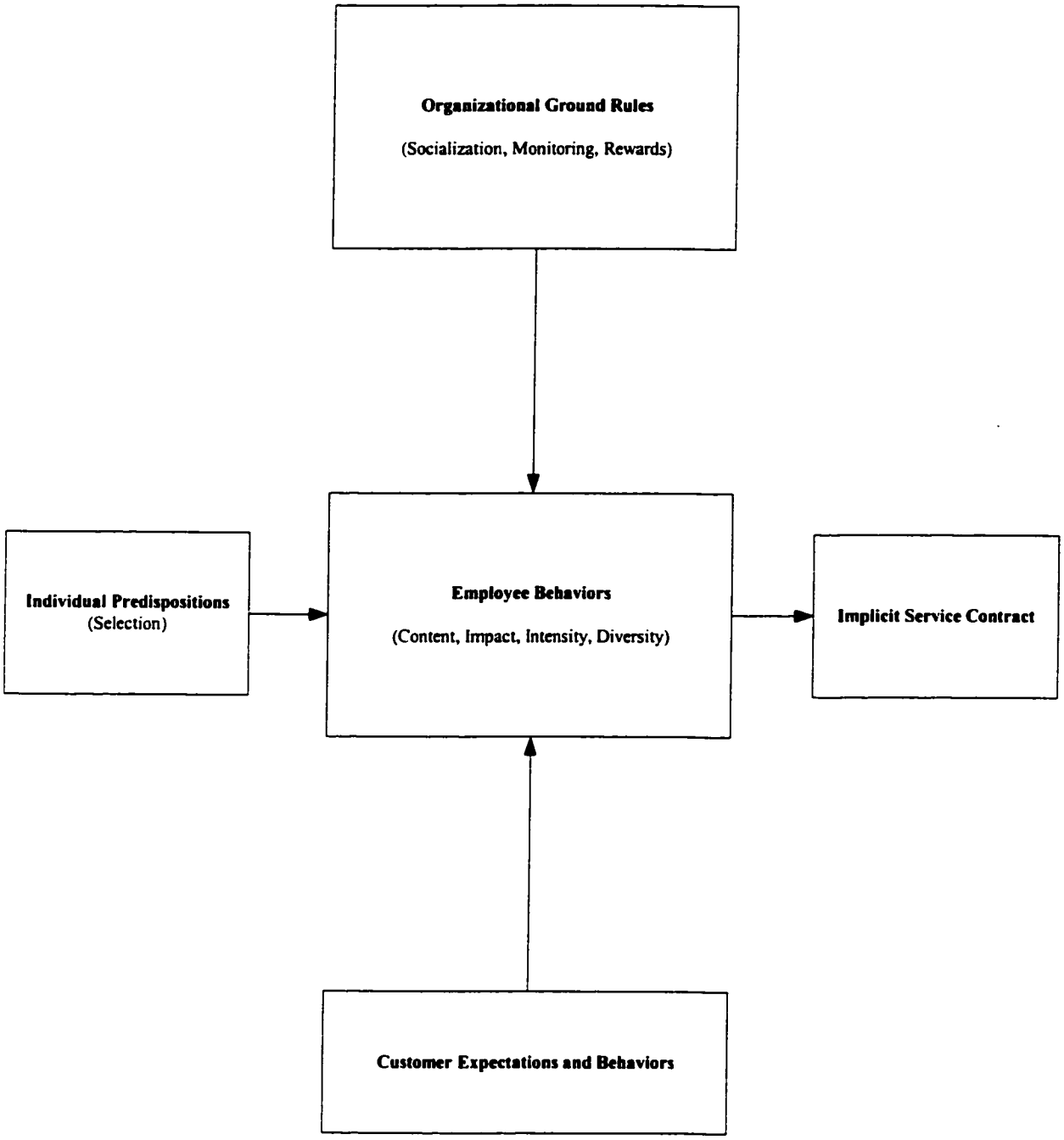
A model of how these various factors guide emotional behavior is proposed in Rafaeli (1993). The model appears in Figure 8 and may be taken as a conceptualized and slightly enhanced summary of Hochschild's(1983a) work on emotional labor who has addressed many of the themes discussed in Rafaeli and Sutton's work. The model also somewhat rejoins observations in Tansik (1990) who has suggested that employees may be evaluated by customers with respect to: (a) interpersonal skills, (b) co-production skills, (c) sales and self-monitoring skills, and (d) dress. These factors suggest that an *implicit service contract* exists between organizations represented by front-line employees and customers. Rafaeli (1993) states that:

> [t]he essential assertion here is that verbal and nonverbal messages available from customer contact employees allow customers to develop particular expectations from the organization. Such expectations add up to a tacitly accepted contract. Obviously, other factors may join in with employees' influences, such as image and reputation, or advertising. (p. 179)

The work of Hochschild (1983a), of Rafaeli and Sutton, and of many others such as Mars and Nicod (1984) stress the importance of service providers' emotional displays to the delivery of service. However, these and other studies were carried out from a management perspective and therefore place its importance in issues which do not directly address the consumer. Some have emphasized matters which revolve around the potential costs and benefits of normative behaviors to employees and their employers. The issues which surround emotional expression on the job, the occupational and organizational constraints and rules that govern it, and the structural conditions of work, appear to be a reality with far reaching consequences for service agents and the organizations that employ them. For firms,

Figure 8

Dimensions of and Factors that Influence the Behaviors of Customer-Contact Employees



Source: Adapted from Rafaeli (1993)

the proper execution of emotional labor appears to carry various positive consequences on performance (Hochschild, 1983a; Tyler & Nathan, 1985). For employees, engaging in emotional labor can lead to monetary rewards (e.g., Mars & Nicod, 1984; Parkinson, 1991). However, it may also involve a downside. The consequences of emotional labor can include alienation, burnout, stress, and emotional numbness (Hochschild, 1983a; Maslach, 1982; Rafaeli, 1989b; Sutton & Rafaeli, 1988); substantial expense and time in preparing for the role (Terkel, 1974); role-related issues such as conflict and ambiguity (Hochschild, 1989a; Jackson & Shuler, 1985; Shamir, 1980; Weatherly & Tansik, 1993; Wharton, 1999; Wharton & Erickson, 1993); and a consequent inability to perform appropriately in subsequent encounters (Schneider, 1990). Gross and Levenson (1993) provide a review of research which suggests that the suppression or inhibition of emotions such as anger and hostility can lead to hypertension, coronary heart disease, and cancer onset and progression.

A televised CTV News report was aired on Thursday July 6th, 2000 concerning new legislation that was adopted on that day for dealing with disruptive airline passengers. The interviewed flight attendants directly or indirectly touched upon the many of the themes brought forth by Hochschild (1983a) in her study of the industry. Mainly, the interviewees expressed frustration with being constrained in their capacity to deal with irate/drunk passengers, with the inefficacy of ordinary politeness with such passengers, and that advertising by airlines contributed to reinforce deviant behaviors in passengers by creating unrealistic expectations. The new legislation now allowed airline employees to place irate and disruptive passengers under arrest in-flight.

On the other hand, the area of marketing has focused on the consumer. However, emotion is typically understudied in marketing (Bagozzi et al., 1999; Cohen & Areni, 1991; Oliver, 1994; Price, Arnould, & Tierney, 1995). No empirical investigation was found in the services marketing area which directly implied the importance of service provider emotional displays to the service encounter or service evaluation factors. Perhaps the one exception was a study done in the field of communication by Zabava Ford (1995) who related nonverbal immediacy to perceived courtesy in the context of a service encounter. However, much research in the area of services marketing indirectly implies the importance of emotional

displays to service evaluation factors. For instance, Zeithaml and Bitner (1996) offer a review of Bitner's studies involving the critical incident technique (see Bitner et al., 1990, 1994). This research has uncovered four themes which are, in turn, associated with pleasure/satisfaction and displeasure/dissatisfaction in memorable service encounters. The four themes are: (a) *recovery* or employee response to service delivery system failures, (b) *adaptability* or employee response to customer needs and requests, (c) *spontaneity* or unprompted and unsolicited employee actions, and (d) *coping* or employee response to problem customers. With respect to each theme, Zeithaml and Bitner (1996) offer a list of various service provider behaviors which should (Do's) and should not (Don'ts) be acted out in service encounters. For instance, when in a recovery situation, the service provider should *apologize* and *take responsibility* but should not *ignore the customer*, *blame the customer*, and *act as if nothing is wrong*. Adaptability should involve attempts to *accommodate* and to *recognize the seriousness of the need* and should not involve *laughing at the customer* and *embarrassing the customer*. Spontaneity should involve being *attentive*, *listening*, and *showing empathy*. It should not involve *exhibiting impatience*, *yelling*, *laughing*, and *swearing*. Finally, coping should involve *listening*, *trying to accommodate*, and *explaining*.

Many, if not all, of this partial list of behaviors do quite obviously involve emotional displays on the part of service providers. One does not need a precise definition of what Zeithaml and Bitner (1996) mean by "show empathy" to conclude that emotional displays are involved in conveying empathy[56]. Emotional displays are obviously implicit to showing empathy and to many of the behaviors listed above (e.g., yelling, laughing, and swearing). Zeithaml and Bitner (1996, p. 114) refer to the behaviors they discuss as *General Service Behaviors* or *Do's and Don'ts*. Their importance and therefore the importance of the underlying emotional displays to service encounters stems from the fact that Bitner and her associates used a critical incident approach to compile themes from *memorable service encounters*. Incidents involving these themes therefore stuck with the interviewees long after

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[56] Much has been written in psychology which suggests that reflective emotional reactions/displays and role-taking ability underlie the empathic response (see Davis, 1983; Mehrabian & Epstein, 1972; Schmais & Schmais, 1983; Stotland, 1969).

the incidents had taken place.

That some of these elements are subsumed in the notion of emotional labor and consequently involve "appropriate" or rule-based emotional displays and that a variety of factors combine to create expectations in customers is made evident in Hochschild (1983a) who states that:

> "[a] market for emotional labor" is not a phrase that company employees use. Upper management talks about getting the best market share of the flying public. Advertising personnel talk about reaching that market. In-flight service supervisors talk about getting "positive attitude" and "professional service" from flight attendants, who in turn talk about "handling irates." Nevertheless, these efforts of these four groups, taken together, set up the sale of emotional labor .... Throughout the 1950s and 1960s the flight attendant became a main subject of airline advertising .... The image they chose, among many possible ones, was that of a beautiful and smartly dressed Southern white women, the supposed epitome of gracious manners and warm personal service .... The ads promise service that is "human" and personal. The omnipresent smile suggests, first of all, that the flight attendant is friendly, helpful, and open to requests .... But when words are added the smile can be sexualized, as in "We really move our tails for you to make your every wish come true" .... Such innuendos lend strength to the conventional fantasy that in the air, anything can happen .... We might add that the first, and nonsexual, significance of the advertised smile - special friendliness and empathy - can also inflate the expectations of passengers, and therefore increase their right to feel disappointed. Ordinary niceness is no longer enough; after all, hasn't the passenger paid for extra civility? As every flight attendant knows well, she can expect deep indignation when her expressive machine is idling or, worse yet, backfiring. (pp. 91-95)

By drawing on this quotation, it is apparent that some service encounters are not a mere economic exchange. Their delivery and the enhanced expectations which consumers hold clearly point to something that involves much expression of emotion. In Hochschild's (1983a) words, it involves expectations of "friendliness and empathy" and thus not simply the delivery of "ordinary niceness." Moreover, the delivery of services requires a fully functioning "expressive machine" as opposed to one that is "backfiring" or "idling." In service settings which are highly personalized and involve high levels of customer contact such as therapy relations (for examples of therapy relations, see Winstead, Derlega, Lewis, & Margulis, 1988), these differences may to some extent be conceptualized along the wider

distinction made between *communal* and *exchange* relationships[57]. The two types of relationships clearly involve different sets of rules and norms (Batson, 1987; Batson & Oleson, 1991; Clark, 1984; Clark & Mills, 1979, 1993; Mills & Clark, 1982). In the service encounter, exchange appears somewhat analogous to what Grönroos (1982, 1990) labels *technical service quality* or what the consumer is left with after the service encounter. Johnson and Zinkhan (1991) refer to this as *outcome quality*. On the other hand, aspects of what constitute communal relationships, appear closely related to what Grönroos (1982, 1990) calls *functional service quality* or the manner in which the service is delivered[58].

Specifically, the distinction between exchange and communal relationships "is based on the rules and norms that govern the giving and receiving of benefits" (Clark & Mills, 1993, p. 684). Exchange relationships, such as the economic exchange of products for money, involve the exchange rule of "a specific benefit is owed in return for a benefit received" (p. 686). Moreover, benefits are provided in exchange relationships with "the expectation of receiving a comparable benefit in return or as repayment for a benefit received previously" (Clark & Mills, 1993, p. 684). In other words, a form of record keeping underlies exchange relationships (Clark, Powell, & Mills, 1986). On the other hand, communal relationships tend to be pervasive and involve, for instance, relationships between parents and children, between close friendships, and romantic circumstances (Clark & Mills, 1979). However, weaker communal relationships are commonly observed with strangers (Clark & Mills, 1993) and communal relationships are not necessarily long-term relationships (Clark,

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57 We do not suggest that the service encounter is a communal relationship. However, highly personalized and high involvement/high contact services (e.g., psychotherapy) appear to require performances which resemble the interactions underlying communal relationships. These interactions appear to involve much more than that suggested in pure exchange relationships.

58 Goodwin and Gremler (1996) also draw on the exchange - communal relationship literature and relate it to the service encounter. However, they view behaviors associated with communal relationships in the service encounter as actions which may be separated from the actual delivery of services (e.g., a barman who serves as a part of a social support network). Similarly, Adelman, Ahuvia, and Goodwin (1994) suggest that the social support provided by some service providers may best be "conceptualized as a separate supporting service ... rather than a style of transferring the core service benefits" (p. 149) (see also Grönroos, 1987). However, based on Hochschild's (1983a) account of the service encounter, communal behaviors are viewed here as aspects of service delivery and are subsumed under the notion of emotional labor and its elicitation which is based on adherence to norms.

Mills, & Powell, 1986).

When a pair of individuals desire to establish and maintain a communal relationship, they tend to behave like friends whereas when the desire is to establish an exchange relationship, people tend to behave like strangers (Clark, 1984; Clark et al., 1986, 1989; Clark & Taraban, 1991). Essentially, communal relationships involve concern for and a feeling of responsibility for the welfare of the other party involved (Clark, Ouelette, Powell, & Milberg, 1987). Underlying the communal norm are behaviors which aim at taking care of the needs of another which, in turn, result in a sense of satisfaction and nurture for the receiver of benefits (Mills & Clark, 1982). No record keeping underlies communal relationships "because benefits are distributed according to needs or to demonstrate concern for the other" (Clark et al., 1986, p. 333). Clark and Mills (1993) state that:

> [i]n communal relationships, the receipt of a benefit does not change the recipient's obligation to respond to the other's needs. It does not create a specific debt or obligation to return a comparable benefit, as it does in an exchange relationship. (p. 684)

Moreover, Clark, Mills, and Powell (1986) hold that:

> [w]hat distinguishes communal and exchange relationships are the rules governing the giving and receiving of benefits. In communal relationships, members have a general obligation to be concerned about the other's welfare. They give benefits in response to needs or to please the other. In exchange relationships, members do not have an obligation to be concerned about the other's welfare. They give benefits with the expectation of receiving comparable benefits in return or in payment for benefits previously received. (p. 333)

A clear analog to this statement rests in the prescribed relational orientation and accompanying behaviors of certain high-contact service providers (e.g., personalization, courtesy, caring, and empathy displayed by a medical doctor) which are viewed as a premium[59] on top of the actual service that is rendered (e.g., the actual operation performed

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[59] These "extras", as Hochschild (1983a) refers to them, involve emotional labor which is viewed as something that is effortful on the part of the service provider and that may involve some costs to the service provider (i.e., numbness, burnout, stress, etc.). On the other hand, they are viewed as something that is expected by the consumer whose expectations are enhanced especially by company communication which, in turn, seeks not only to match its competitors but also to establish a competitive advantage by continually promising higher and higher levels of friendliness, closeness, empathy, care, etc. Thus, from the service providers' perspective, the delivery of emotional labor may appear as adhering to the norms of a communal relationship. However, for consumers, it may appear

by the medical doctor). For instance, Arnould and Price (1991) suggest that the evaluation of a river rafting service can be enhanced when the provider manages to be viewed as a friend. In a like vein, Adelman, Ahuvia, and Goodwin (1994) suggest that some service encounters contribute to a sense of community and provide social support. They add that:

> some service providers, such as divorce lawyers, funeral home directors, or matchmakers, are in especially good positions to provide social support because the nature of their businesses almost ensures that clients coming to them will be under stress and therefore in special need of support. (p. 143)

The delivery of such services involves emotional labor. Not only is the provision of some services an exchange but it typically involves at least the semblance of a communal relationship[60] in that the provider must at least give the impression of responding to the needs of the client through empathy, caring, etc. This semblance in the delivery of caring or supportive behavior in the service encounter (i.e., unfelt performance) is based on such notions as *dramaturgical metaphor*, *impression management*, and *surface acting* (Hochschild, 1979, 1983a). Moreover, two dimensions of relationships underlie whether or not a communal norm will be applied: (a) strength of the relationship (e.g., closeness) and (b) cost of the benefit (Clark & Mills, 1993; Mills, Clark, & Ford, 1993). In Hochschild's (1983a) account, emotional labor is encouraged by organizations and employees are sometimes trained in *deep acting* which, in turn, results in personalization of the service delivery. However, this involves a cost if the service agent is not in touch with his/her identity as a service provider (role awareness) and is unable to de-personalize from the role. That the application of communal norms is based on closeness and the amount of costs that

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only as another element of exchange, something s/he was promised and has paid for.

60 Analogies to the provision of services do not rest in the *relationship* aspect of the communal-exchange norms distinction. Rather, they involve the two differing types of norms which underlie the distinction and, in turn, suggest two differing *relational orientations*. The notion of *relationship* implies multiple contacts between the customer/client and firm and deviates from the general services literature. However, it is closely related to the more recent *relationship marketing* perspective (e.g., Berry, 1995; Liljander & Strandvick, 1995; Schneider, Schoenberger White, & Paul, 1997). It is clear that communal-type norms and behaviors underlie the delivery of some but not all services. They would typically be associated with the delivery of goods which involve a significant service component and with high-involvement services and services which require a great deal of customer contact such as those of the medical variety. The latter inherently require greater levels of emotional labor on the part of service providers (Ashforth & Humphrey, 1993).

the provider is willing to incur (Clark & Mills, 1993) thus has clear analogs in Hochschild's (1983a) perspective on emotional labor.

6.3 The Relevance of Psychological and Sociological Perspectives on Emotion to the Service Encounter

The goal in the subsequent section will be to develop a model of the service encounter which represents the encounter as a dynamic emotion system. This model is to include a typology of service providers' emotional displays and specify their impact on the emotional state of the consumer. To specify the provider-side of this model, we will take our lead from Hochschild (1983a). The question remains as to which general perspective, the psychological or the sociological, is better suited to specify the remaining aspects of the *emotion system of the service encounter*. Past studies of service interactions have tended to rely heavily on sociological explanations/depictions of behavior in general (e.g., Weatherly & Tansik, 1993) and of emotional expression in particular; and this especially on the part of the service provider (e.g., Mars & Nicod, 1984; Rafaeli, 1989a; Sutton, 1991).

High-contact services do indeed offer an ideal interactional forum for the tenets and assumptions of sociological (interactionist) theories of behavior and emotion to be met. The social, dramaturgical, and interactional aspects of the service encounter are undeniable and these aspects drive sociological theories of emotion. As proposed in Kemper (1991), emotions may not always be socially constituted but they "are overwhelmingly so" (p. 311). A good example is the emotion *embarrassment* which is presented as one that only emerges in social situations or in real or imagined interaction with others (Goffman, 1967; Leary, 1983; Miller & Leary, 1992). In the sociological perspective, exceptions or non-social causes of emotions may appear when nervous system pathology (e.g., Tourette Syndrome) or psycho-pathology (e.g., schyzophrenia) occurs or on occasions "that have no evident social reference at all: the joy and awe of a splendid mountain vista or other natural display, the irritation at a dead battery in the car ..." (Kemper, 1991, p. 312).

It is quite apparent that some sociologists seem to discount psychological (intrapersonal) explanations of emotion to the point where internal processes of emotion are given a very small role in a phenomenon that is presented as almost entirely of a social nature

or as one which contains an overwhelming number of social referents (see Franks & McCarthy, 1989; Kemper, 1991; Thoits, 1989; Zurcher, 1982, 1985).

Although sociological discourse and its level of analysis have dominated depictions of interpersonal interaction in the service encounter from an employee-based perspective (e.g., Aldrich & Herker, 1977; Bowen & Schneider, 1985; Weatherly & Tansik, 1993), they appear inadequate or insufficient to fully explain the impact of service providers' emotional displays on their targets, the consumers of services. In comparison to service providers, the behaviors/reactions of customers are much less constrained and stagebound. In other words, the consumer is endowed with a free-actor status in the service encounter (Bowen & Schneider, 1988). Consequently, the vantage point in many studies in marketing that have adopted a dramaturgical perspective on the service encounter (e.g., Deighton, 1992; 1994; Grove, Fisk, & Bitner, 1992; Solomon et al., 1982, 1985) is insufficient for the task at hand in that it fails to specify the impact of provider behavior on the intrapersonal states of consumers. Its level of analysis is typically contained to the impact of social factors (e.g., adherence to norms, scripts, etc.) on overt behaviors.

Attempts have been made in the services management literature to contain the domain of emotional labor to observable behaviors (see Ashforth & Humphrey, 1993). This level of analysis is especially apparent in the work of Rafaeli and Sutton. However, a dramaturgical metaphor (see Goffman, 1959, 1967) of the behaviors of service agents emerged as insufficient in Hochschild's (1983a) attempt at addressing the emotional process which service agents engage in. This led her to adopt a perspective on emotion which was interdisciplinary and which partly associated the notion of *emotional labor* to internal regulatory mechanisms of emotion which, in turn, were presented as being guided by social factors.

In developing a model of the impact of emotional labor on consumer emotion, one may simplistically be inclined to adhere to a dramaturgical metaphor and generalize its level of discourse to the consumer and his affective behavior in the service encounter. Such a discourse would inevitably involve a focus limited to the emotional displays or the expressive behaviors of the provider and the consumer. A naive approach directed at

providing a quick fix to the specification of consumers' emotional reactions in the service encounter would for instance be based on the suggestion that the consumer also engages in something akin to emotional labor and that the level of analysis should be limited to directly observable behaviors. However, such a discourse would quite obviously disable discussions of internal feeling states. There is in fact considerable evidence to indicate that consumers do experience feelings during and after consumption (e.g., Cohen & Areni, 1991; Bagozzi et al., 1999; Havlena & Holbrook, 1986; Mano & Oliver, 1993; Oliver, 1992, 1993b, 1994, 1996; Richins, 1997). Furthermore, the adoption of this limited level of discourse on the interaction between provider and consumer would subsequently imply cognitively-laden interpretation processes based on the coding and decoding of communication signals. In this feeble attempt, such processes would in all likelihood be described in terms which suggest that they are voluntary, attentive (conscious), and controlled. However, interaction often involves processes which are unintentional, pre-attentive (unconscious), and automatic (see Hatfield et al., 1994; Parkinson, 1996). In particular, communication can involve symbolic (voluntary) and spontaneous streams of information (Buck, 1988a, 1991b). Surely, many routine service encounters across various occupational settings do not always engage stagebound or voluntary behaviors on the part of the consumer and provider but are rather based on spontaneity, rapport, and mutual entrainment. Hence, a dramaturgical perspective seems especially limiting not only when it comes to accounting for the emotional labor of service providers but also in explaining the emotional reactions of consumers.

Another level of discourse appears suggested by the lacunae inherent in discourses rooted in dramaturgical metaphors and their subsequent focus on observable behaviors. This alternate form must not only address the intrapersonal effects of provider behaviors on the consumer but also the interpersonal nature of the service encounter. Moreover, such a level of discourse would appear to involve many more facets than those deemed relevant in discussions of service evaluation factors. Researchers in services marketing have typically emphasized the importance of such constructs as *satisfaction* (e.g., Oliver, 1993a, 1996), *service quality* (e.g., Gummesson, 1992; Otto & Ritchie, 1995; Grönroos, 1990; Zeithaml & Bitner, 1996), and related conceptualizations such as *effort* (e.g., Mohr & Bitner, 1995a,

b) and *personalization* (e.g., Surprenant & Solomon, 1987). However, these constructs only hint at the importance of emotional displays on the part of the service provider in that emotional displays are in some way or another implicit to these factors. Furthermore, the proposed modes in which these factors are evaluated (e.g., expectancy disconfirmation) is one that is highly cognitive (see Oliver, 1994, 1996; Taylor, 1995) and thus implies much conscious information processing. A reliance on cognitive evaluation processes has in turn resulted in a downplay of the role of affective constructs in consumers' reactions to service encounters (Oliver, 1996; for a more general discussion of the subordinate role of affect in consumer behavior frameworks, see Cohen & Areni, 1991). Consequently, the role of less conscious or pre-attentive forms of appraisal (e.g., Arnold, 1960; Öhman, 1999; Zajonc, 1980) appears dismissed or ignored at best. The role of emotion in general in the evaluation of services seems in fact ambiguous and vague throughout this literature and is afforded a simplistic treatment.

Typically, attempts which have sought to incorporate emotion in services evaluation have done so without disturbing the structure of existing knowledge in the area which is essentially rooted in cognitively-laden constructs. In essence, emotion has been mapped onto existing cognitive frameworks. Efforts have thus apparently sought to specify the place of emotion with respect to pre-established linkages among cognitive and behavioral factors and have either only addressed emotion in an indirect fashion which borders on ignoring it (e.g., Bitner, 1990) or have viewed it only as an outcome variable (e.g., Oliver, 1993b). It is argued herein that emotion plays a much bigger role in the service encounter.

To directly address the intrapersonal (affective) consequences of emotional displays on consumers requires that we partly draw on the theories discussed in Chapter One. The traditional psychological perspective generally suggests that emotions are hard-wired, functional, and that they involve a battery of measurable concomitants (Izard, 1977; Öhman, 1986). This view positions emotions within the realm of intrapersonal processes and thus suggests that they are private and personal phenomena (Miller & Leary, 1992; Parkinson, 1996). Some researchers have drawn on and extended the core somatic and appraisal theory perspectives in psychology. The discourse of many now incorporates notions from sociology,

communication studies, and/or cultural anthropology. These frameworks suggest that the social and/or interactional aspects of emotion are undeniable and perhaps even primordial to an understanding of emotion (e.g., Averill, 1980a, b, c; Buck, 1984, 1988a, 1991a, b; Fridlund, 1990, 1992a, 1994; Manstead, 1991; Metts & Bowers, 1994; Parkinson, 1995; Zajonc, 1998).

Although one trend in the psychology of emotion invites interdisciplinarity and has produced findings which put in question many of the basic tenets of the traditional somatic perspectives (e.g., Averill, 1982; Fridlund, 1994), traditional theories in psychology appear at first glance to be generally better suited to provide a basic understanding of what goes on within the individual client or consumer. However, it is also apparent that the impact of social and interactional factors cannot be excluded in an explanation which also considers the provider. The supplementing of traditional psychological theories with perspectives from sociology and communication studies, provides a multilevel framework that is sufficient to construct an emotion system where interpersonal and intrapersonal factors interact and render the exchange dynamic. As in Hochschild (1983a), interdisciplinarity appears to be suggested. Hochschild (1983a) states that:

> [f]rom the interactional theorists, then, we learn what gets done *to* emotion and feeling and how feelings are a preamble to what gets done to them. From Darwin, as from other organismic theorists, we gain a sense of what, beneath the acts of emotion management, is there to be managed, with institutional guidance or in spite of it. Yet, this is not the whole story. It is not simply true that the malleable aspect of emotion is "social" (the focus of interactionist theorists) and that the unmalleable aspect of emotion is its biological link to action (the focus of the organismic theorists). Rather the unmalleable aspects of emotion (which is what we try to manage) is *also social* .... I add [this point] because I think it introduces still another venue through which to develop a social theory of emotion (p. 220)

It is apparent that the various disciplines involved in the field of emotion are slowly converging toward common ground. For instance, Jones et al. (1991) found that two differing interpretations of the significance of distinct facial expressions appear in the psychology literature. One holds that emotional experience automatically triggers or activates prewired or preconfigured patterns of facial movements which result in an expression unless they are modified by top-down (cognitive) processes or actively inhibited. This traditional view

characterizes the perspective of Ekman (e.g., 1977) and Izard (e.g., 1977) and reduces the role of facial expression to one that is simply to express emotion.

The other proposes that facial expressive movements represent evolved social displays which are not designed to signal or encode information about emotional states but rather information about behavioral tendencies within a social context (e.g., Fernandez-Dols & Ruiz-Belda, 1995; Fridlund, 1991a, b, 1992a, b, 1994; Gilbert, Fridlund, & Sabini, 1987; Jakobs, Fischer, & Manstead, 1997; Jones, Collins, & Hong, 1991; Kraut & Johnson, 1979). In particular, Fridlund (1991a, b, 1992a, b, 1994) has adopted and vehemently defended this second perspective and has argued that the influence of social context has largely been ignored in studies of facial displays of emotion. That emotional displays can signal emotional states and be socially motivated echoes Hochschild's (1979, 1983a) analysis of emotional labor. In presenting emotion as an interpersonal and intrapersonal phenomenon, we adopt here what is best characterized as a *social psychological* perspective on emotion (see Parkinson, 1996). This level of discourse appears well suited to explanations of emotion in interaction (Miller & Leary, 1992) and represents an enhanced perspective on the traditional person-centered view in psychology and purist sociological accounts of emotion.

Moreover, both the psychological and sociological perspectives acknowledge the role in emotion of what psychologists have labeled *cognition*. As discussed earlier (see Chapter One), researchers who adhere to the psychological perspective are involved in ongoing debate about cognition's role in emotion. For instance, Lazarus (1984a, b; 1991a) has argued that cognition necessarily precedes emotion and that the latter is a continuation of the cognitive process associated with goal achievement. On the other hand, Zajonc (1980, 1984) has stressed the primacy of affect or that emotion does not require cognition. Other research reverses the causal sequence suggested in Lazarus (1991a) by suggesting that affective states impact a variety of cognitive processes (e.g., Forgas, 1995, 1999; Isen, 1984, 1999). In the sociological perspective, cognition is addressed via *symbolic interactionism* where emotion is viewed as emergent or something that is socially constructed (Franks, 1985; Kemper, 1991; Shott, 1979). That both perspectives have addressed the possibility that cognition is involved in the modulation or regulation of emotion accommodates an important notion in

the services literature: that a service provider can consciously enact scripted emotional behavior during the service encounter, regardless of whether these are feigned or truly felt; and at another level, the provider can more or less consciously manipulate his/her feeling state and attain a congruency in feeling with a feeling rule (Hochschild, 1983a). These forms of regulation are perhaps likely to involve some level of conscious processing because in this context/setting the use of emotion is motivated (goal-directed) (Hochschild, 1979, 1983a) or strategic (Parkinson, 1997). Provider goals can include various forms of organizational (e.g., profit, market share, etc.) and personal (e.g., commissions, advancements, promotions, etc.) gains.

Another notion which will emerge in subsequent sections of this chapter and in Chapter 8 is that cognition and emotion are related and both are relevant to how a service provider and a service encounter may be evaluated. In particular, *appraisal theories* (see Scherer, 1988b, 1999; Parkinson, 1997) provide frameworks which appear to be good candidates for cognitive explanations of reactions to encounters with service employees (see Bitner, 1990). However, the conscious awareness and mental arithmetic that is suggested by many appraisal theories implies that they are perhaps not realistic (Scherer, 1993). At a more unconscious and automatic level, *primitive emotional contagion* can result in matched emotion directly from interaction (Hatfield et al., 1994). The affective state that is thus generated can subsequently impact on service evaluation factors. Moreover, this state can serve as a source of information to both provider and customer. Via feedback from one participant to the other, synchrony in the encounter can be established (Hatfield et al., 1994). Another process that may account for consumer emotions is *preparedness* (Seligman, 1970). This process rests on Darwinian precepts and suggests biological/evolutionary predispositions to react to the displays of others (Smith et al., 1996). Among the three proposed processes, primitive emotional contagion emerges as the explanation which most involves considerations of the interpersonal basis of emotion.

6.4 A Proposed Model of the Emotion System of the Service Encounter

So as to specify a model of the *emotion system of the service encounter* we need to take account of both the service provider and the consumer/customer. An interdisciplinary

model of the emotion system should acknowledge and/or include the following: (a) emotion is a multicomponent process or syndrome (Averill, 1980b; Fridja, 1986, 1993; Öhman, 1986; Scherer, 1984a); (b) that the importance or salience of each component may be different on the provider side than on the consumer side of the model; (c) that some components of emotion can be regulated (Mesquita & Fridja, 1992; Walden & Smith, 1997); (d) consideration of the social (Averill, 1980a, b, c; 1982, 1984; Hochschild, 1979, 1983a; Kemper, 1991, 1993) and interactional[61] (Andersen & Guerrero, 1998; Hatfield et al., 1994; Metts & Bowers, 1994; Parkinson, 1996) aspects of emotion; (e) some form of perceptual process and thus the general involvement of what may be broadly called *cognition* (Parkinson, 1997; Scherer, 1998b, 1993, 1999) which, in turn, may involve controlled (conscious, attentive, and intentional) or automatic (unconscious, pre-attentive, and unintentional) levels of information processing (see Arnold, 1960; Bargh, 1994, 1996; Schneider et al., 1984; Öhman, 1999); (f) the importance and specification of expressive behavior (Buck, 1984, 1988a, 1991b; Dimberg, 1988a, 1990a, 1991; Ekman, 1982, 1985, 1992a, 1993; Izard, 1990, 1994; McHugo & Smith, 1996; Smith et al., 1996); and (g) interpersonal feedback mechanisms from consumer to provider so as to enable a dynamic interaction (Buck, 1991b; Hatfield et al., 1994).

That different components of emotion and their subsequent effects need to be stressed in the emotion processes of provider and customer is indicated by various underlying characteristics of the service encounter. For service providers, emotion is a strategic tool (Parkinson, 1997). It is intentional, expected by the customer, and often reinforced by

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[61] Although Hochschild (1983a) labels her theory an *interactional model*. This is somewhat misleading. Hochschild (1983a) does not directly look into interaction between provider and customer in the service encounter. Rather, the interactional quality which she refers to rests on a broader notion, that of the social. Specifically, the inclusion of both biological and social factors in her model of emotion renders it "interactional" (see p. 211). In other words, she holds that social factors intervene in the regulation of biologically-determined emotion. This view is consistent with that of other constructivists such as Averill (1980a, b). Thus, Hochschild's (1983a) use of the term *interactional* may be taken to refer to an interaction of components and therefore to signify *interdisciplinarity* rather than interaction between participants *per se*. In the model proposed herein, the term *interactional* is directly taken to signify the interaction between customer and provider. The consumer and provider are taken to interact in an episodic and dynamic fashion and we attempt to account for this interpersonal feature of the service encounter with specific reference to emotion in a multilevel discourse.

organizational constraints and structure (Hochschild, 1983a; Rafaeli & Sutton, 1987, 1989, 1990). Hochschild's (1983a) interactional theory of emotion is that on which we base and conceptualize the provider side of the model. Hochschild (1983a) stressed internal regulation based on social factors but put much less emphasis on the expressive component of emotion. However, unlike in Hochschild (1983a), much emphasis is put here on the role of the facial displays of the provider. The consumer emerges as the target of provider displays. Facial expressions and other expressive behaviors provide cues to the customer. Furthermore, emotion on the part of the consumer in interaction appears less intentional and less regulated via norms and rules. Thus, on the consumer side of the model, emphasis is put on intrapersonal processes that explain how provider displays can result in emotion in the consumer.

An important extension of Hochschild's (1983a) perspective on the service encounter involves here the specification of one or more processes which explain how the service provider's emotional expressions impact the emotions of the customer and how the customer's emotions are involved in perpetuating interaction. Given the dominance of the appraisal perspective on emotion (Bagozzi et al., 1999; Cornelius, 1996; Parkinson, 1997), the impact of the service provider's emotional displays on the consumer can be explained by some form of cognitive appraisal theory which would then predict the generation of a discrete emotional state in the target consumer. Two more direct, less conscious, and more automatic mechanisms to consumer emotion are also proposed. *Primitive emotional contagion* and *preparedness* represent these other mechanisms. They differ from appraisal theories in that they are largely unconscious or pre-attentive in their perceptual antecedents (cf. Arnold, 1960; Scherer, 1993) and they are rooted in somatic theories of emotion. Neither has been investigated in the context of the service encounter. The inclusion of primitive emotional contagion in particular enables a dynamic, direct, automatic, largely unconscious, and synchronous interaction between provider and customer. The dynamic quality which it procures is one that is far beyond the capabilities of stimulus-response models which underlie all appraisal theories of emotion (Scherer, 1993).

In sum, primitive emotional contagion and its underlying mechanism (mimicry and

feedback) provide elements which appear to fill the gaping holes of dramaturgical metaphors on the service encounter, to partly ground the service encounter and consumer emotion in a somatic perspective, to extend the treatment of emotion in marketing, and to extend Hochschild's (1983a) account to one that can truly be deemed interactional, episodic, dynamic, and synchronous. A comparative summary between Hochschild's (1983a) perspective and the one developed here appears in Table 4.

6.4.1 Emotion and the Service Provider

The service encounter is typically represented in a dramaturgical perspective (e.g.,Deighton, 1994; Grove et al., 1992; Smith & Houston, 1983; Solomon et al., 1982, 1985; Weatherly & Tansik, 1993). Dramaturgical analysis is generally attributed to Goffman (1959, 1967, 1974). In adopting this perspective, some investigations of the service provider emotion process have focused on its expression and have stressed the importance of this component to proper service delivery (Rafaeli, 1989a, b; Rafaeli & Sutton, 1987, 1989, 1990; Sutton, 1991; Sutton & Rafaeli, 1988). The rather limited dramaturgical view on behavior in general and emotion in particular emphasizes overt expressions and does not address intrapersonal (psychological) states which presumably give rise to expressions or are concomitants of behavioral indicators of emotion in the workplace. On the other hand, Hochschild's (1983a) perspective subsumes the notion of dramaturgy and related perspectives such as impression management while providing a focus on the internal regulation of emotion. By doing so, Hochschild's (1983a) interactional theory of emotion emerges as interdisciplinary rather than purely sociological. Her approach not only accounts for how the socius (various norms, feeling rules, social role, etc.) drives emotion but also includes aspects of the Freudian and somatic theories of emotion. Hochschild (1983a) attributes the interactional aspect of her model to the combination of two different perspectives on emotion. She states that: "[t]he interactional model presupposes biology but adds more points to social entry: social factors enter not simply before and after but interactively *during* the experience of emotion" (p. 211).

Hochschild's (1979, 1983) account of emotion suggests a perspective which rests between extreme universalist and differentialist stances on emotion (Scherer & Wallbott,

Table 4

A Comparison between Hochschild's Interactional Theory and the Proposed Emotion System Model of the Service Encounter

Criteria / Theory	Level of Discourse	Emotion Component Focus	Consumer Focus	Role of Cognition in Emotion and Its Regulation	Interpersonal Dynamics
Hochschild's (1983a) Interactional Theory of Emotion	Combination of somatic, sociological, and Freudian levels of analysis with emphasis on sociological component.	Internal feeling state and to a lesser extent on expressive components. The role of bodily feedback is mentioned but minimized. Emotion is positioned as sense in accordance with Freud. Emotion is presented as information about internal states which can be unconscious.	Focus is on the provider. Almost no focus on intrapersonal consequences of emotional labor in the consumer. Emotional labor is expected by the consumer and is beneficial to the organization at a potential cost to providers in terms of well-being.	As in James (1890), emotion is conscious. It represents a cue about potentially unconscious states. Ambiguous role of cognition in the regulation of emotion. Emotional labor can be both conscious (active) and unconscious (passive).	Apparently provided by social components of the theory but rather unspecified. No form of interpersonal feedback is suggested. Attention to social factors (e.g., norms) can alter hardwired responses via regulation in social situations.
Current Model	Combination of cognitive, somatic, sociological, and communication theory levels of analysis. Not only is Hochschild's emotional labor process conceptualized, the proposed model represents a clear and differentiated extension of Hochschild's model.	Internal feeling and expressive components. The "power of faces" is suggested. The role of bodily feedback is emphasized. Feedback enables primitive emotional contagion . Emotion is presented as information at two levels. In the communication theory-based feedback component, emotion emerges as an important aspect of a conscious indirect exchange (coding and decoding) of information. At another level, it emerges as a consequence of a more direct and automatic type of exchange. Emotion can be unconscious.	Consumer is viewed as target of displays. Different mechanisms leading to emotion in the consumer are specified vis-à-vis the provider's emotion process.. The role of consumer culture in emotion is introduced. Culture impacts on appraisal and expressive components of emotion.	Provider: Emotion is conscious or is brought into consciousness via self-perception. Important role of cognition in the regulation of emotion. Comparison of actual feeling with feeling rule is probably conscious. Individual differences can explain whether one engages in emotional labor or not. Consumer: Important role of cognition in cognitive appraisal but unimportant and potentially disruptive in somatic processes such as contagion where pre-attentive mechanisms are posited.	Three forms of interpersonal feedback are specified. A stimulus-response function underlies two forms of feedback. On the other hand, the mechanism of primitive emotional contagion (mimicry and feedback) enables an episodic, dynamic, and synchronous interaction. It can result in matched emotional states, rapport, and mutual entrainment.

1993). Extreme universalist views attribute very little variation in emotion to sociocultural factors (e.g., Ekman & Friesen, 1969b). On the other hand, extreme differentialist views are typically exemplified by anthropologists and hold that emotion is not a biological but rather a sociocultural phenomenon (Lutz, 1988; Mead, 1975; Rosaldo, 1984). Less extreme views that accommodate both perspectives are evident in recent psychological research which points to both biological and sociocultural factors in emotion (e.g., Averill, 1980a, b, c; 1982; Markus & Kitayama, 1991; Mesquita & Fridja, 1992). As in Hochschild (1983a), these perspectives on emotion take the sociocultural context into account.

Hochschild (1983a) suggested that as a service provider senses a particular feeling within herself (i.e., via the Freudian signal function), she compares that feeling to the feeling rule that is dictated by a particular situation. Feeling rules are "what guide emotion work by establishing the sense of entitlement or obligation that governs emotional exchanges" (Hochschild, 1983a, p. 56). It appears that some form of cognition is involved in this comparison process. If a discrepancy or a gap is sensed (see p. 61), then the feeling rule usually overtakes the natural process of emotion and this may result in *deep acting* or an effortful attempt on the part of the service provider to adjust her inner experience. Alternatively, *surface acting* may be used to overtly portray the prescribed emotion during the encounter. Hochschild (1983a) states that: "[f]eelings do not erupt spontaneously or automatically in either deep acting or surface acting. In both cases the actor has learned to intervene - either in creating the inner shape of a feeling or in shaping the outward appearance of one" (p. 36). If a social actor is unable or chooses not to engage in this process, she emerges as an affective or emotional deviant (Goffman, 1974; Hochschild, 1983a; Thoits, 1985, 1990). The internal regulation process proposed in Hochschild (1983a) is partly that which makes this sociological theory unique. In reference to the process described in Hochschild (1979), Myllyniemi (1997) states that:

> changing feelings is harder work than changing expressions. It is easier to produce, say, a smile to mask embarrassment than to get rid of the feeling. Feelings, I think, are more important parts of emotional processes than expressions. They have a twofold function: they are, the same time, information and motivators (Fridja, Kuipers, & ter Schure, 1989; Schwarz, 1990). (p. 274)

Emotion regulation was a topic first emphasized by sociologists and later extended by psychologists (Scherer, 1982a). It appears to be receiving more and more attention (see Walden & Smith, 1997; Wegner & Pennebaker, 1993). Generally, Salovey and Mayer (1989-1990) suggest that emotional regulation is an aspect of *emotional intelligence* which involves abilities to monitor and discriminate among one's own and others' feelings and to use this information to guide one's actions and thoughts. *Social intelligence* is presented as a higher-order concept which subsumes the notion of *emotional intelligence*. These constructs appear somewhat analogous to what Buck (1991b) calls *social* and *emotional competence*. In both cases, emotional regulation emerges as part of a repertoire of social skills.

Regulation has tended to be discussed in a developmental perspective which involves learning and socialization (e.g., Izard, 1990; Thompson, 1994). Research on the socialization of emotions demonstrates that children learn early on to control internal feeling states and to modulate the expression of emotion so as to respond appropriately to situational demands (see Buck, 1984; Campos & Barrett, 1984; Malatesta, 1985; Saarni, 1979, 1984, 1989; Walden & Smith, 1997). Izard (1994) holds that we are as a species endowed with an ability to regulate emotional behavior:

> There appears to be an evolutionary-biologically based connection between a particular expressive behavior and a particular feeling or motivational state, but this connection can be uncoupled or modified by virtue of the capacity of human and nonhuman primates to exercise voluntary control over innate emotion expressions .... That voluntary control of expressive behavior is apparently a fairly recent development in phylogeny ... suggests that the modality of connections between feeling or motivational states and expressions might be indicative of the capacity for developing social-cognitive skills. To have the very sizable repertoire of self-revealing signals of higher primates without the capacity to regulate them would seem a highly maladaptive, if not fatal, turn of nature. Undoubtedly, natural selection saved us from this awkward fate. (pp. 288-289)

Thompson (1990) argues that two aspects of emotion can be regulated: (a) emotional tone (the specific emotion that is experienced such as joy, anger, etc.) and (b) emotional dynamics or the temporal and intensive features of emotion: range, latency, intensity, lability, rise time, and persistence of emotion, along with recovery. In this perspective, regulation can involve either aspect. The regulation of emotional dynamics can for instance slow or speed

recovery, increase or decrease the intensity, or limit or extend the duration of an emotional state. Campos, Mumme, Kermonian, and Campos (1994) suggest that emotion regulation may occur at three different levels: (a) input regulation (sensory receptors), (b) central regulation (information processing), and (c) output regulation (response selection). Hochschild's (1979, 1983a) perspective appears to involve the three levels with a focus on *central regulation*. The Freudian signal function she proposes seems akin to input regulation. In fact, she holds that it is equivocal to a sense. The comparison of the actual feeling to a feeling rule involves information processing. The display of appropriate/expected (normative) emotions results in output regulation. However, one problem with Hochschild's (1979, 1983a) proposed mechanism of emotion regulation is that it presumes a one-to-one correspondence between internal feelings and expressive behaviors. Both aspects of emotion are in fact imperfectly correlated (see Dimberg, 1990a; Lang, 1978, 1988; Leventhal & Scherer, 1987; Öhman, 1986; Parrott & Hertel, 1999). This, in turn, points to the validity of adopting a multicomponent perspective on emotion (see Averill, 1984; Scherer, 1984a) and in not ignoring the important distinction between *feeling rules* and *display rules* (cf. Hochschild, 1979, 1983a; Ekman & Friesen, 1969b).

That the subjective experience of emotion can be regulated is a general and underlying theme of cognitive theories of emotion which suggest that combinations of antecedent appraisals lead to discrete emotional states (e.g., Lazarus, 1991a). For instance, Lazarus and Folkman (1984) clearly demonstrated that emotion regulation is part of an appraisal process of one's ability to cope with an encounter (see also Lazarus, 1991a; Smith & Lazarus, 1993). Similarly, Mandler (1990, 1992) and Averill (1980a, b; 1982) argued that cognitive evaluations guide the selection of emotional responses. Although Averill's account of emotion is not specifically geared to account for interactional episodes, it remains similar to that of Hochschild in many respects. Both Averill and Hochschild are social constructivists and both perspectives on emotion thus reflect interdisciplinarity. As in Hochschild (1983a), Averill (1980a, b, 1982) gives primacy to sociocultural factors as determinants of emotion rather than to biological and physiological factors. Accordingly, the *learned* rules which guide emotion are presented as the social constituents of

multicomponent emotion syndromes (Armon-Jones, 1986a, b; Averill, 1984). However, Averill appears to lend a greater role to cognitive processes in emotion than does Hochschild (1983a). In particular, Averill's perspective places various rule-based components of emotion akin to Hochschild's *feeling rules* within an appraisal theory framework. The rules which determine emotional conditions and reactions "are represented psychologically as cognitive structures" (Averill, 1980a, p. 305). Furthermore, the complexity of how we interpret our emotional experiences is stressed by Averill and the behavioral and physiological aspects of emotion are presented as a consequence of interpretation (i.e., cognition) (see Averill, 1974). Accordingly, the components of emotion are taken to combine in a coherent manner guided by the socially-determined rules underlying *emotion roles*. In sum, emotion as a *social role* emerges as the temporary enactment of a prescribed set of responses. These responses are regulated by a set of rules that guide many aspects of emotion which include: (a) the appraisal of a situation (e.g., Is this a situation in which it is appropriate to express sadness?); (b) the interpretation of bodily reactions which follow the appraisal (e.g., Is it sadness that I now feel?); and (c) the behavioral response to the appraisal (e.g., crying) (Averill, 1984).

Similarly, Fridja (1986) suggested that emotion has multiple components which include an awareness of the situational meaning structure and/or the cognitive appraisal of situations. Elsewhere, Fridja (1993) suggested that emotion involves a *significance* that is separable from its experience. Specifically, the term *significance* is taken to refer to the "reflective judgment" of an emotion as "controllable or uncontrollable, desirable or undesirable, ... acceptable or unacceptable ...." (Fridja, 1993, p. 383). Hence, emotions can be consciously and contextually evaluated.

Although, Hochschild (1983a) is somewhat ambiguous[62] about the role of conscious

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62 In Hochschild (1983a), the assessment of feeling in regard to a feeling rule can be unconscious or conscious. Hochschild (1983a) states that: "[s]ome people doubtless reflect on feeling less than others. In any given instance, when an individual has no sense of 'feeling inappropriately,' one of three conditions applies: (1) the rules for his or her situated feeling are internalized but unavailable to consciousness; (2) he or she is not disobeying the rules and therefore is not aware of them; (3) the rules are in fact weak or nonexistent" (p. 250). Subsequently, she discusses how people "assess their feelings" which appears to imply some form of cognition. Specifically, she states that: "[p]eople assess their feelings as if they were applying standards to feelings. These acts of assessment are secondary reactions to feeling. From secondary reactions to feeling we may postulate the existence

cognition in regulation, Averill (1980a, b) and Fridja (1986, 1993) appear to give conscious interpretation a primordial role. In Hochschild (1983a), the ambiguity with respect to whether the comparison between one's actual affective state and a feeling rule is conscious perhaps rests partly in the references made to Freudian mechanisms which, in turn, are often associated to the unconscious. It also rests in continuous reference to both active and passive forms of regulation. Emotional labor appears to be potentially conscious in some situations and potentially unconscious in others (see p. 250). It can be active (effortful) and cognitive (p. 247) but it can also involve "passive concentration" (p. 248). For instance, Hochschild (1983a) states with respect to parental, amorous, and friendship bonds that: "the deeper the bond, the more emotion work, and the more unconscious we are of it" (p. 68). On the other hand, with respect to the service worker whose bonds with the client or customer "do not cut so deep," Hochschild (1983a) holds that "their emotion work rises more readily to the surface of consciousness where it can be seen and talked about" (pp. 68-69). Statements such as 'I psyched myself up' indicate to Hochschild (1983a) an "awareness of acting on [i.e., manipulating] a feeling" whereas statements such as 'I found myself filled with pride' reveal a "passive stance" (p. 39). Similarly, Gross and Levenson (1993) hold that regulation can involve conscious or unconscious efforts. On the other hand, Campos, Campos, and Barrett (1989) appear to lean more towards a cognitive interpretation. They state that emotions are "processes of establishing, maintaining, or disrupting the relations between the person and the internal or external environment, when such relations are significant to the individual" (p. 395). Personal significance emerges as an important aspect of Lazarus' (1991a) appraisal theory of emotion which, in turn, clearly suggests that appraisals are rather conscious because the proposed appraisal forms of this theory appear to involve much mental calculus.

At their inception, both forms of emotional labor (surface and deep acting) discussed

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of rules" (p. 250). It is important to remember that as a constructivist sociologist, Hochschild (1983a) adhered to symbolic interaction theory whose outgrowth is attributed to the findings of Schachter and Singer (1962). These findings downplayed the role of physiology in emotion and suggested the more important role of cognition (see Kemper, 1991). This point allows us to further infer Hochschild's (1983a) perspective on emotion and position it as one in which cognition plays an important role but one that also remains rather implicit without being discussed in much detail in her work.

in Hochschild (1983a) show a reliance on external[63] (social) cues for engaging in emotion regulation. However, the works of Deci and Ryan (1985a, b) point to individual differences in whether one tends to rely on controlling contingencies or pays greater attention to one's needs and feelings (Koestner, Bernieri, & Zuckerman, 1992). The type of regulation of behavior an individual engages in thus appears related to his/her general tendencies to regulate behavior in a control-determined or autonomous fashion (Deci & Ryan, 1985a). In this perspective, intentional behaviors can be viewed as autonomous (i.e., reliance on internal cues for engaging in regulation) or control-determined (i.e., reliance on external cues for engaging in regulation) (Deci & Ryan, 1985b). Koestner et al. (1992) hold that:

> [p]henomenologically, autonomous and controlled behaviors are quite different: Autonomous behaviors are experienced as flowing forth spontaneously with feelings of interest and enjoyment as their guide, whereas behaviors that are controlled tend to be associated with feelings of pressures and tension related to a concern about attaining some specified outcome (Ryan, 1982). (pp. 52-53)

Moreover, Deci and Ryan (1985a, b) argue that the degree to which personality[64] consistency (i.e., congruity among thoughts, behaviors, feelings, and needs) is maintained depends upon one's regulatory style. Specifically, because autonomous individuals rely on their internal feelings and needs, they are posited to maintain a higher degree of consistency than those who depend on external controls and are thus limited in self-awareness. This line

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63 We use the word "external" to refer to compliance with norms, organizational pressures, and other social cues that may result in engaging in emotional labor. Although, *deep acting* involves an internalized feeling rule, engaging in deep acting is first and foremost determined by external factors. Erickson and Wharton (1997) propose that many organizations expect service agents to not only display prescribed emotions but to also experience them because customers are often able to distinguish authentic from inauthentic emotions. An individual with a more autonomous orientation may choose not to comply with, for instance, organizational pressures or occupational norms and may choose to continually disregard feeling rules to the point that they are only partially or perhaps never internalized. This may also apply to the newly-hired employee which still has not had the opportunity to be socialized within an organization and thus relies on his/her own feelings and needs to regulate emotions.

64 Although Deci and Ryan (1985a, b) provide an account of regulation which clearly reflects a personality perspective because of its emphasis on dispositions, we find that their propositions can be extended to a more sociological perspective. For instance, they propose that personality consistency can be maintained via regulation. In a like vein, it can also be suggested that various forms of identity including that of service provider can be maintained or disrupted via prescribed or deviant forms of regulation.

of thought touches upon Hochschild's (1983a) observations that some agents have a difficult time disengaging from their role and have little awareness of a *false self.* The autonomous regulation component of measures such as the General Causality Orientations Scale (GCOS) (Deci & Ryan, 1985b) shows respectable positive correlations with scales measuring openness to experience, ego development, private self-consciousness, acceptance of one's feelings, and self-actualization. However, no significant statistical relations appear with scales indicating regulation of behavior based on social contingencies such as self-monitoring and public self-consciousness (see Koestner et al., 1992). These findings may shed light on the seemingly authentic *emotional* or *affective deviant* who does not pay attention to the sociality of a particular situation to regulate emotion (see Hochschild, 1983a; Goffman, 1967, 1974; Thoits, 1985, 1990). The autonomous/control-oriented dichotomy based on a dispositional trait appears to augment the explanatory power of Hochschild's (1983a) theory with respect to whether one has or has not the tendency to engage in the type of internal regulation suggested by Hochschild (1983a).

Hochschild (1979, 1983a) emphasizes the role of normative constraints and feeling rules in regulation and focuses on the regulation of internal experience rather than on that of the expressive component of emotion. An assumption appears to be made in Hochschild (1983a) that internal adjustment via deep acting will automatically generate corresponding/congruent expressions of emotion. On the other hand, an important notion in Averill's perspective on emotion is that not every instance of any particular emotion is necessarily associated with all four of the proposed components of emotion: (a) subjective experiences, (b) expressive reactions, (c) physiological responses, and (d) coping reactions (Averill, 1980b). In other words, manifestations of any subset of the four components may be sufficient to define an emotional experience but none is absolutely necessary. This notion also appears in other work which suggests that the various aspects of emotion reflected in verbal reports, physiological responses, and overt motor behaviors (see Figure 7) are "not components of a coherent emotion construct and correlate only imperfectly" (Parrott & Hertel, 1999, p. 71; see also Dimberg, 1990a; Lang, 1978, 1988; Öhman, 1986; Leventhal & Scherer, 1987; Lewicki, 1986). These views appear to suggest that surface and deep acting

may be independent processes with the former engaging only display rules and the latter involving both feeling rules and display rules. They also suggest that the regulation of the expressive component of emotion requires more attention than that which is given to it in Hochschild (1983a). Accordingly, Thompson (1994) suggests that individuals must learn and be able to regulate both the internal and expressive aspects of emotion for proper functioning.

An explicit focus on the notion of *display rules*[65] (Ekman & Friesen, 1969b; Ekman et al., 1982; Mesquita & Fridja, 1992) appears to augment the explanatory power of Hochschild's (1983a) perspective. Mesquita and Fridja (1992) hold that regulation has been closely related to what Ekman et al. (1982) called *display rules* from which *suppression* or *inhibition* rules may be inferred. Discussion of regulation of expression by display rules provides a specific focus on the expressive component of emotion. Ekman and Friesen (1969b) hold that display rules are cultural norms which govern when, where, and how specific emotions are to be expressed. Three of the four display rules proposed in Ekman and Friesen (1969b) revolve around the modulation of the intensity of expressions of emotion (i.e., neutralization, attenuation, and exaggeration). The notion of *display rules* can be extended in that they can reflect a variety of norms which are not only cultural but can be organizational and occupational. In the organizational context, a focus on display rules renders compliance with norms directly observable (Rafaeli & Sutton, 1989).

With specific reference to expressive behaviors, a distinction has been proposed between *regulation* and *control* (see Buck, 1977; Pulkkinen, 1982). Walden and Smith (1997) hold that the former "generally refers to the attunement of emotional experience to everyday events" whereas the latter suggests "constraint" (p. 12). Other researchers have not implied this distinction and have tended to subsume control under regulation. Accordingly, regulation of expression seems to involve two general forms: (a) the masking of expressions of unacceptable emotions via suppression and the consequent conformity of expression to display rules with a potential for leakage of "true" feelings (Ekman, 1985; Saarni, 1989) and (b) a form which does not simply involve suppression but rather the display of appropriate

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[65] The notion of *display rules* is discussed in Hochschild (1983a). However, her focus was more on the internal regulation of emotion.

forms of expressions which are designed to communicate with and influence others (e.g., Malatesta & Haviland, 1985). These categories of expression appear somewhat analogous to the expressions which result from surface and deep acting. A focus on the regulation of expressive behavior also leads to a proposition which was not fully explored in Hochschild (1983a). Specifically, this rests in the potential for facial and other bodily forms of feedback to influence internal emotional states (Duclos et al., 1989; Fridlund, 1994; James, 1890; McIntosh, 1996; Smith et al., 1996).

The proposed model of the *emotion system of the service encounter* appears in Figure 9. A perspective is taken here which puts the multicomponent nature of emotion at the forefront of the service encounter and not merely its display as in Rafaeli and Sutton (1987, 1989, 1990) or its internal regulation as emphasized in Hochschild (1983a). Many of the variables and linkages included on the provider side of the model stem from a conceptualization of Hochschild's (1983a) work. In addition, it is held here that emotional displays do not merely serve an expressive function as suggested by Darwin[66] and other theorists such as Ekman (1982) as well as Izard (1977) (for discussions, see Cacioppo, Bush, & Tassinary, 1992; Camras, Holland, & Patterson, 1993; Fridlund, 1994); they are also intended for reception by others and thus involve a communicative function (Bavelas et al., 1986, 1987, 1988; Buck, 1984, 1991a, b; Chovil, 1991; Kraut & Johnson, 1979; Planalp, 1998). This distinction is analogous to what Buck (1984, 1988a, 1991b) has termed *spontaneous* and *symbolic* forms of communication. In holding that expressions of emotion are more than spontaneous reflections of internal states enables a managed *interpersonal communication* of emotion in interaction and thus, a wider range of emotional behavior than

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66 Planalp (1998) says that: "Darwin ... believed that emotions served the function of notifying other members of the species of important events such as danger, but he did not assume that emotional expressions were modified for communicative purposes" (p. 32). She adds that: "adapting our messages to others may be as much a part of being human as is smiling with joy and staring in anger"(p. 32). This communication perspective relates to that which holds to the sociality of emotional expression or that observable emotional behavior is guided by both the emotion and the presence of others as observers (Bavelas et al., 1987, 1988; Chovil, 1991; Fridlund 1994). From a psychological perspective, findings which suggest the importance of sociality rejoin the sociological perspective on emotion in that awareness of social structure and of its rules and norms is seen as contributing to the expression of emotion.

that suggested by Darwinian theorists of emotion. Buller and Burgoon (1998) hold that:

> [some] authors approach emotion as a *biological signal system* in which overt expressions are spontaneous, unfettered indices of internal neurochemical emotional experiences (Buck, 1984, 1991[a]; Cacioppo, Bush, & Tassinary, 1992). However, humans are quite capable of controlling and managing many of their emotional displays. Consequently, emotional expressions also form a *social signal function*. They are used intentionally to communicate information and fulfill a variety of functions in social interaction, beyond simply revealing one's internal emotional reactions (Buck, 1991[a]; Buck, Losow, Murphy, & Costanzo, 1992; Chovil, 1991; Chovil & Fridlund, 1991; Fridlund, Sabini, Hedlund, Schaut, Shenker, & Knauer, 1990; Heise & O'Brien, 1993; Jones, Collins, & Hong, 1991). (p. 388)

The service provider emotion process depicted in Figure 9 begins with a sensing or an awareness of one's internal feeling state or the phenomenological component of emotion. Hochschild (1983a) refers to a Freudian signal function that acts like a sense. In the model proposed here (see Figure 9), this has been reconfigured as an awareness state based on self-monitoring behavior along the lines of what Bem (1967) labeled *self-perception* (see Laird & Bresler, 1992). The process proposed here presumes that emotions can be unconscious (Öhman, 1999) and thus requires that one's affective state be brought into consciousness[67] just as an able therapist monitors his feelings for pertinent information about a client's feelings (Jung, 1968). The internal regulation mechanism proposed in the model which results in an altered feeling state is presented along the lines of what is discussed in Hochschild (1983a). However, the level of consciousness that is involved at this point remains ambiguous in Hochschild's (1979, 1983a) work.

Alternatively, this process may be viewed as a cognitive interpretation of a situation where the appropriateness of a feeling is consciously assessed against normative prescriptions and then potentially readjusted (Averill, 1980a, b, 1984; for an emphasis on cognitive processes in emotion, see also Fridja, 1986, 1993). This perspective does not

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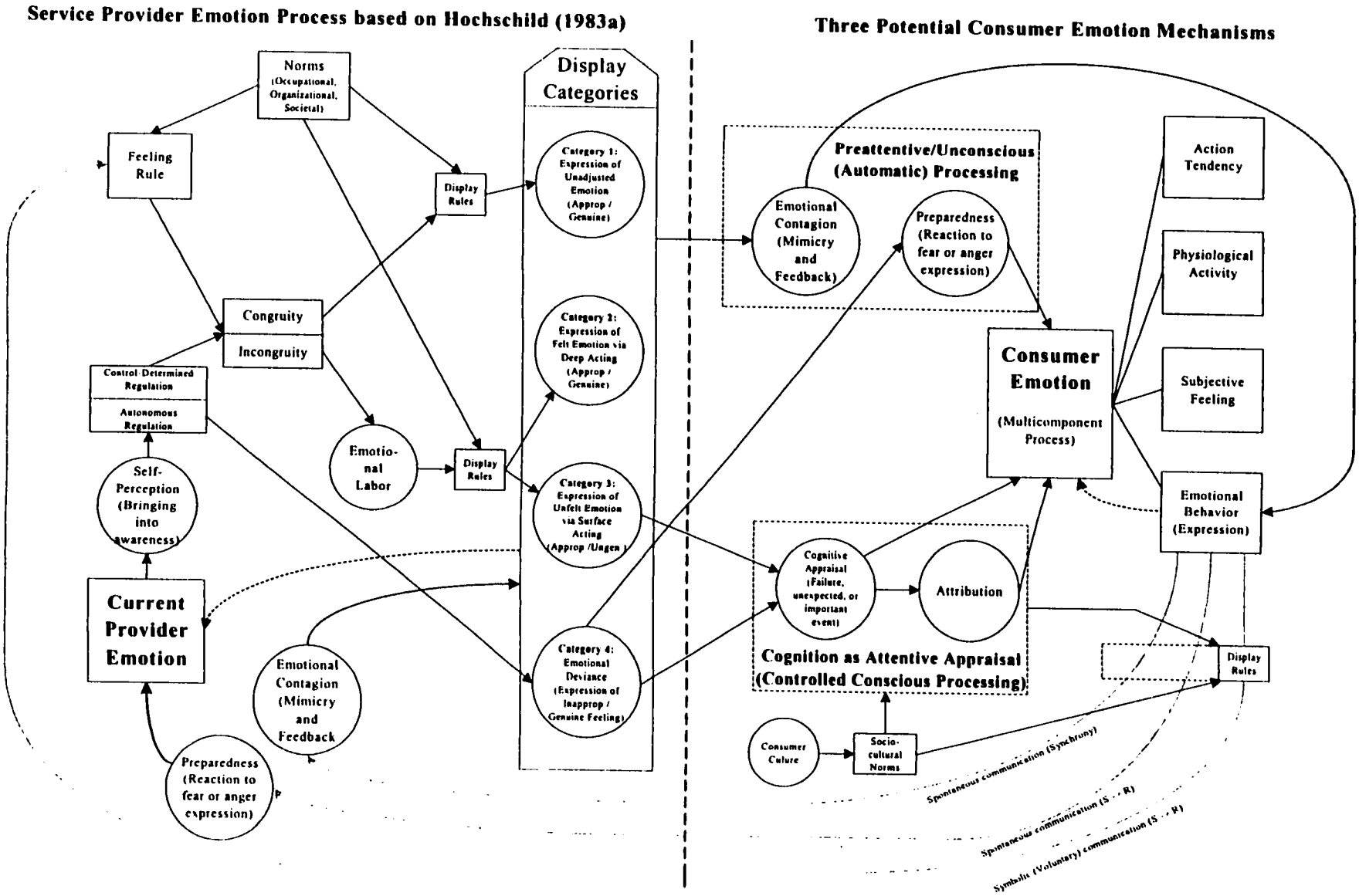
[67] In Hochschild (1983a) feeling/emotion is clearly described as conscious. Hochschild (1983a) presents emotion as a "clue" or "signal" to an inner perspective (see p. 28-30) that may be unconscious (p. 246). It is also presented as an action tendency or "action manqué[e]" (p. 219). Hochschild (1983a) states that: "[e]motion is unique among the senses, however, because it is related not only to an orientation toward *action* but also to an orientation toward *cognition*" (p. 219). It is added that: "feeling signals perception and expectation to us" (p. 223). Although Hochschild (1983a) follows James (1884, 1890) and suggests that emotions cannot be unconscious (see also Clore, 1994), recent evidence points to unconscious occurrences of emotions (see Öhman, 1999).

Figure 9

A Model of the Service Encounter Emotion System



negate the subsequent use of deep or surface acting, it simply grounds it in cognitive antecedents. The proposed sequence resembles that of appraisal theories of emotion which involve conscious interpretation (Scherer, 1993) and cognitive structures (Averill, 1980a). The gap between feeling rule and actual feeling discussed in Hochschild (1983a) in fact resembles an expectancy disconfirmation paradigm where the feeling rule based on norms may be taken to represent an expectation. Expectations and norms appear intimately related concepts. Wilson and Klaaren (1992) suggest that social expectations are cognitive structures analogous to social norms. It appears reasonable to presume that with time and experience, the process of comparing one's actual feeling state to a feeling rule can become routine, very rapid, and less conscious or more automatic.

A dichotomous individual difference variable (control-determined vs. autonomous regulation) is positioned as an antecedent to internal state regulation (Deci & Ryan, 1985a, b). Dispositional factors typically emerge as moderator variables (see Baron & Kenny, 1986). The inclusion of this dispositional factor suggests that if an individual has a strong tendency for autonomous regulation, the individual will not rely on external cues (i.e., organizational, occupational, and sociocultural rules and norms) and may have difficulty in engaging in the normative regulatory process suggested in Hochschild (1983a). On the other hand, a control-determined orientation suggests that the individual will be inclined regulate his/her internal feeling state.

That regulation by the service provider not only involves feeling rules but also display rules is addressed in the model. Both normative forms are determined by organizational, occupational, and societal norms. The need to stress both the internal feeling state and the expressive components rests on findings which suggest that they are imperfectly correlated (e.g., Dimberg, 1990a; Leventhal & Scherer, 1987; Öhman, 1986; Parrott & Hertel, 1999). Andersen and Guerrero (1998) propose the following display rules: (a) *simulation* (e.g., posed smile); (b) *inhibition* or *neutralization* (i.e., conveying the impression that one has no feeling when one truly experiences an emotion); (c) *intensification* or *maximization* (i.e., conveying the impression that one experiences feeling more strongly than one actually does); (d) *deintensification* or *minimization* (i.e., conveying the impression that one feels an

emotion with less intensity than one really does); and (e) *masking* or *substitution* (i.e., conveying a completely different emotion than the one that is experienced). Intensification and deintensification involve moderating the intensity of an existing emotional state whereas masking results in the portrayal of an emotion that is completely different from the one that is truly felt. Masking and inhibition appear to involve greater effort than the manipulation of emotional intensity. Saarni (1993) states that: "[f]iguring out how to make a substitution or how to go poker-faced may require somewhat more complexity of thought and greater command of facial muscles, and it is assumed that children will demonstrate these expressive strategies somewhat later" (p. 437). Masking also appears as a fundamental aspect of deception (Buller & Burgoon, 1998).

Emotional displays can vary with respect to many aspects which include valence and arousal (e.g., Russell, 1979, 1980, 1997), intensity and frequency (e.g., Diener et al., 1985), power and status (Kemper, 1978, 1984), authenticity (Ashforth & Tomiuk, 2000), spontaneity (Stanislavski, 1948/1965), social appropriateness, and level of internal and external regulation (Hochschild, 1983a; Kemper, 1991, 1993). Four categories of displays are suggested by a careful reading of Hochschild (1983a). Each is based on the nature of the underlying affective state, whether emotional labor is engaged in or not, and the type of emotional labor one engages in. Two categories are rooted in emotional labor and thus a process of emotion regulation which is enabled by an awareness of one's actual feeling state, a feeling rule, and a gap (incongruity) between them. Whether one regulates the feeling and its expression or simply its expression depends on whether deep or surface acting is engaged in. Three of the four streams of displays are deemed non-deviant in that they involve normative displays. A detailed summary of the characteristics of the four proposed categories of emotional displays appears in Table 5.

The first category of displays (Category 1 at the top of Figure 9) involves the expression of unaltered genuine emotions (no emotional labor). Here, the feeling rule and the feeling experienced by the provider are congruent thus, no emotional labor is engaged in.

Table 5

Characteristics of the Four Categories of Emotional Displays

Criteria / Display Cat.	Regulation of Internal Feeling	Regulation of Expressive Behavior	Appropriateness (Expected/ normative)	Perceived Authenticity	Spontaneous or Symbolic
Category 1 (No emotional labor-Normative)	No	No	High	High	Spontaneous
Category 2 (From deep acting)	Yes	Yes	High	High	Spontaneous
Category 3 (From surface acting)	No	Yes	High	Low	Symbolic (Voluntary)
Category 4 (No emotional labor-Deviance)	No	No	Low	High	Spontaneous

Appropriate/expected (normative), spontaneous[68], and genuine/authentic displays of emotion are consequently delivered. Although we position this category of displays as a consequence of a comparison of an internal feeling state to an actual feeling, these displays do not require allusion to sociological theory or to a process of emotion regulation to explain their occurrence. Their spontaneity and authenticity[69] enable a direct correspondence with Darwinian perspectives (e.g., Buck, 1984; Ekman, 1982, 1989; Izard, 1977; Tomkins, 1962). These perspectives appear sufficient to explain their occurrence especially in the case of basic/fundamental emotions whose displays are taken to be based on neural firing programs and to simply constitute a readout of internal states.

The two subsequent categories of displays are determined by emotional labor which implies compliance with display rules[70]. Hence, they result in appropriate/expected

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68 Hochschild (1983a) clearly relates *spontaneity* to *genuineness/authenticity* and the non-regulation of emotion. She refers to Rousseau's Noble Savage who does not regulate, is spontaneous, and thus genuine, but does not constitute a good prospect "for the job of waiter" (p. 22). Later, she argues that: "we have begun to place an unprecedented value on spontaneous, 'natural' feeling" (p. 190). In the present work, *spontaneity* and *genuineness/authenticity* are not considered to be completely synonymous. Clearly, genuineness or authenticity can be inferred from spontaneous expression. However, spontaneous rather than genuine expressions are important in Buck's (1984, 1988a, 1991b) work where they are delineated from symbolic (voluntary) forms of communication. More generally, spontaneous expressions are closely associated to somatic theory where the intervention of top-down mechanisms is considered necessary for modifying a natural expression attributed to the firing of a neural program. Accordingly, the terms *spontaneous* and *genuine/authentic* are here considered related but discriminant; and the term *spontaneous* is attributed the broader significance in the emotion literature. Both are thus mentioned in our discussion of categories of displays.

69 Hochschild (1983a) delineates *sincerity* from *authenticity*. Sincerity is taken to indicate an absence of guile. On the other hand, authenticity is clearly related to "spontaneous, 'natural' feeling" (see p. 190-192). Hochschild (1983a) argues that society did place a value on sincerity as a virtue. However, this has changed and a value is now being placed on authenticity. This change is presented as a reaction to "the rise of the *corporate* use of guile and the organized training of feeling to sustain it." Hochschild (1983a) adds that: "[t]he more the heart is managed, the more we value the unmanaged heart" (p. 192).

70 Emotional labor involves surface or deep acting. In Hochschild's (1983a) perspective, both forms result in compliance with display rules. Deep acting requires more effort than surface acting because the appropriate outward display of emotion (i.e., compliance with display rules) is determined by first complying with feeling rules. This correspondence between feeling and display rules is presented as more or less automatic in that if one engages in deep acting it is presumed in Hochschild (1983a) that an emotional expression will emerge which corresponds to the internal feeling state. This perspective is typically Darwinian and implies a perfect correspondence between the internal feeling state and expressive components (see Fridlund, 1994). However, as discussed above, the behavioral, phenomenological, and physiological components of emotion are imperfectly correlated (e.g., Parrott

(normative) displays. The second category of displays (Category 2) involves an regulated or altered feeling state and the conveyance of this feeling via *deep acting*. Deep acting is effortful and requires knowledge of the ways of the stage[71]. Among the four categories of displays, the generation of this category is the one which requires the most work on the part of the employee (Hochschild, 1983a). The internal feeling state and the display of emotion are both managed strategically and thus, in all likelihood, the display appears spontaneous and felt. Hochschild (1983a) states that in deep acting, "display is a natural result of working on feeling; the actor does not try to *seem* happy or sad but rather expresses spontaneously" (p. 35). Hence, deep acting greatly increases the likelihood that the expression will be perceived as genuine. Hochschild (1983a) closely relates deep acting to *personalized service*. Personalization involves a customized or "Have it Your Way" type of service delivery (Surprenant & Solomon, 1987). Hochschild (1983a) also discusses deep acting in relation to pathological outcomes which may occur when a worker identifies too highly with the work role and has "no awareness of *false self* [italics added]"(p. 187). In Zurcher's (1985) dramaturgical perspective, such a worker is unable from "disengaging the organizational script" (p. 200).

The third category of displays (Category 3) involves 'superficial' or unfelt expressions of emotion as suggested by the notion of *surface acting*. This category of displays does not involve the regulation of an inner experience of emotion but is congruent with display rules. Surface acting is closely associated to the dramaturgical and impression

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& Hertel, 1999) and the manifestation of no single component is deemed necessary for an occurrence of emotion (Averill, 1980a). Accordingly, it was deemed necessary to provide a conceptualization which involves a focus on both components. Unlike in Hochschild (1983a), we do not presume perfect correspondence between expressive and internal feeling state components.

[71] Hochschild (1983a) refers to Stanislavski's (1948/1965) Method for actors to explain how deep acting can be engaged in. In Stanislavski's perspective, self-induced affect can result from "making direct use of a trained imagination" (Hochschild, 1983a, p. 38) via the use of *emotion memories*. Hochschild (1983a) suggests that another way to self-induce emotion is by "directly exhorting feeling" or "the direct prodding of feeling" (p. 38). This latter form of deep acting involves "attempts to exhort feeling as if feeling can listen when it is talked to" (p. 39). The active suppression and the modification of feeling states are two ways by which feeling states can be regulated. Modification requires the intervention of top-down processes or cognition (Jones et al., 1991; Wilson & Klaaren, 1992; Zajonc, 1998).

management perspectives where no assumption is made about whether an emotion is felt (Goffman, 1959; Zurcher, 1982, 1985). Accordingly, Hochschild (1983a) holds with respect to surface acting that: "[t]he body, not the soul, is the main tool of the trade .... the actor is only *acting* as if he had feeling" (p. 37). She adds that: "[t]he actor does not really experience the world ... but he works at seeming to" (p. 38). Stanislavski (1948/1965) was critical of this form of acting. He states that:

> [t]his type of art (of the Coquelin school) is less profound than beautiful. It is more immediately effective than truly powerful .... It acts more on your sense of sound and sight than on your soul. Consequently, it is more likely to delight than move you .... Only what can be accomplished through surprising theatrical beauty or picturesque pathos lies within the bounds of this art. But delicate and deep human feelings are not subject to such technique. They call for natural emotions at the very moment in which they appear before you in the flesh. They call for the direct cooperation of nature itself. (p. 268)

That regulation in this case involves only the directly observable aspects of emotion implies that these displays are symbolic (voluntary) rather than spontaneous (see Buck, 1988a).

This category of displays carries with it the possibility that the service provider may be perceived as ungenuine (Hochschild, 1983a) or deceitful (Buller & Burgoon, 1998) because of contrived emotional expressions. Generally, individuals appear to be able to distinguish felt from unfelt displays of emotion (Erickson & Wharton, 1997). Ekman (1985, 1997; see also Ekman & Friesen, 1982; Ekman et al., 1982; Ekman, Davidson, & Friesen, 1990; Frank & Ekman, 1997; Frank, Ekman, & Friesen, 1993) has suggested that even when display rules are internalized, there is often leakage of "true" expressions into observable behavior (see also Babad, Bernieri, & Rosenthal, 1989; DePaulo, 1992; DePaulo & Friedman,1998). This research has focused on the face and has delineated the facial action units involved in felt and posed smiles. False smiles typically (a) do not involve a raising of the cheeks, narrowed eyes, crows-feet wrinkles and bagged skin below the eyes; (b) tend to be asymmetrically encoded with a dominance of the left side of the face in right-handed people; (c) involve longer apex duration, shorter onset time, and abrupt offset; (d) are encoded either too early or too late; and (e) contain remnants of a negative emotion when the posed smile is designed to mask this emotion or to dampen a positive one (Ekman, 1997;

Ekman & Friesen, 1982). Expressions of negative emotions tend to persist in the upper eyelids, forehead, and eyebrows and, if they are strong, in parts of the lower face which include pressed lips, a pushed up lower lip, and tightened lip corners (Ekman & Friesen, 1982). Expressions of positive emotions are typically dampened by pushing up the lower lip, pressing the lips together, and tightening the lip corners (Ekman & Friesen, 1982). Other research has also suggested that the smile can represent an instrument used to mask deceit. Specifically, deceivers tend to smile, nod, and use pleasant expressions more often than non-deceivers (Ekman, Friesen, & Scherer, 1976; Mehrabian, 1971, 1972).

In surface acting, effort is focused on the management of external displays. Hence, the use of the behavioral component of emotion is strategic. However, the use of the internal feeling component is nonstrategic. Accordingly, DePaulo (1992) maintains that: "[e]motions can undermine self-presentational efforts because of the automatic links ... between the elicitation of the basic emotions and the nonverbal expression of these emotions" (p. 216). Hence, the service rendered may be taken as depersonalized (Hochschild, 1983a). More generally, this category of displays is indicated in Fridlund (1991a, b; 1992a, b; Fridlund, Kenworthy, & Jaffey, 1992) where expressive behavior is seen as serving a social and communicative function and where no necessary direct relationship is implied between emotional expression and a corresponding subjective experience of emotion. Accordingly, Fridlund, Kenworthy, and Jaffey (1992) stress the sociality of emotional displays but not their readout function as expressions of internal emotional states.

The final category of displays (Category 4 at the bottom of Figure 9) is based on incongruity between feeling rule and experienced feeling. However, the provider does not engage in internal regulation. Display rules are also ignored by the provider. Thus, unadjusted, spontaneous, genuine, and unexpected/inappropriate (non-normative) emotions are expressed. In this case, the worker appears as an *emotional* or *affective deviant* (Goffman, 1967, 1974; Hochschild, 1983a; 1985, 1990; Thoits, 1985, 1990). Buck (1984, 1988c) suggests that failures of regulation involve the habitual control and inhibition of felt emotion and its expressions. By not modulating the display of emotion, expressive behavior may appear non-normative not only with respect to the valence of the emotional state that is

conveyed but also with respect to factors related to its intensity (Ekman & Friesen, 1969b; Barr & Kleck, 1995; Mesquita & Fridja, 1992). An autonomous orientation[72] appears especially relevant to this category of displays in that external cues (norms and feeling rules) tend not to be considered in the regulation of the internal emotional state and/or of expressive behavior. As in the case of Category 1 displays, allusion to sociological theory is not necessary because unregulated displays can be explained in terms of Darwinian theory.

Buck (1988a, 1991b) suggests that spontaneous and symbolic (voluntary) streams of communication occur simultaneously. Although the four categories of emotional displays are presented here as exclusive, they should be viewed as streams of communication in which either social influences or spontaneous reflections of an internal emotional state predominate. The implied variation in spontaneity and voluntary character in the four categories of displays (and especially with respect to the two categories of displays based on emotional labor) suggests that they best be viewed as varying along a continuum rather than two mutually exclusive extremes (see Hess, Kappas, McHugo, Kleck, & Lanzetta, 1990).

The notion that facial displays should be viewed as communicative signals only in that they communicate social intent independently of a concurrent emotional state has recently received much attention (e.g., Chovil, 1991; Fridlund, 1991a, b; Hess, Banse, & Kappas, 1995; Jakobs, Fischer, & Manstead, 1997; Jakobs, Manstead, & Fischer, 1996). Hess et al. (1995) argue that:

> [t]his argument is based on a behavioral ecology view asserting that - because emotional facial expressions obviously serve a communicative function and can be shown to be modified by the presence of others (audience effect) - the alternative explanation of emotional facial expressions as readout or symptoms of an underlying affective state becomes futile. (p. 280)

This view seems especially well suited to the posed smiles that can arise during a service encounter and the various socially-motivated expressions of affect in the behavioral repertoires of service agents. However, our position on emotional expression on the part of the service provider is that the behavioral ecology view accounts for only one type of display

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[72] We somewhat extend the autonomous/control-determined orientations to regulation of an internal feeling state because Deci and Ryan (1985a, b) discuss this individual difference variable more in terms of behavior regulation.

(i.e., those that result from surface acting) and that the three other types involve much greater spontaneity in expression because the resulting expressions are potentially concomitant with an internal feeling state. Accordingly, Hess et al. (1995) argue that emotional and social displays are not exclusive and that sociality alone does not predict the intensity of emotional expressions. Their findings indicated that both the underlying emotion and social context predicted the intensity of smiling behavior. They referred to Bühler's (1934) theory which suggests three different components in a message: the symbolic, the symptomatic, and the appeal function. The first is said to correspond to the sociality factor stressed in Fridlund's work. The second "corresponds to a readout of the individual's internal state" whereas the "third function regards the possible actions of the interaction partner" (Hess et al., 1995, p. 281). Hess et al. (1995) add that:

> [i]n the framework of this and similar models, sociality and emotionality of facial expressive displays easily coexist. Furthermore, one should note that all three aspects of communication are not necessarily equally represented in any given message. Clearly some emotional expressions, such as posed smiles (e.g., greeting smiles), may indeed serve only the signal and appeal function and are inherently social. However, emotional facial expressions congruent with a concurrent emotional state may be influenced by the sociality of the situation without losing their value as readouts of the concurrent emotional state in question. Fridlund (1991[b]) labels this approach the 'romanticist' two factor view of facial expression, which places in opposition instrumental or social expressions on one side and spontaneous expressions on the other. However, as Buck, Loslow, Murphy, and Constanzo (1992) pointed out, the position attacked by Fridlund (1991[b]) represents a simplistic view of the differences between felt and posed expressions that only partially reflects the current discussion in the field. Many proponents of the view that emotional expressions are valid readouts of an underlying affective state recognize that spontaneous and voluntary expressions are extremes on a continuum that both allows and demands emotional as well as social causal influences on expressive behavior (e.g., Buck, 1991[a]; Buck et al., 1992; Cacioppo, Bush, & Tassinary, 1992; Hess, Kappas, McHugo, Kleck, & Lanzetta, 1989; Hess & Kleck, 1990). (p. 281)

Moreover, fairly recent evidence indicates the possibility that there are two distinct neural systems of emotion expression. The extrapyramidal motor system appears to be involved in the production of more spontaneous reflexive expressions whereas the cortical pyramidal motor system appears associated to the more voluntary and controlled expression of emotion (Buck, 1984, 1988c; Fridlund et al., 1987; Leventhal, 1980, 1984). Accordingly,

the four forms of emotional displays can easily be described in terms of Buck's (1984, 1988a, 1991b) *spontaneous* and *symbolic* streams of affective communication. The spontaneous variety is defined as being: (a) composed of signs which convey motivational-emotional states; (b) associated to a biologically shared coding and decoding system; (c) unintentional "although it can be suppressed or inhibited intentionally" (1991b, p. 126); and (d) "non-propositional, since it cannot be false" (1991b, p. 126). On the other hand, symbolic (voluntary) communication is defined as being: "(1) learned and culturally patterned; (2) based upon symbols which have an arbitrary relationship with their referent; (3) at some level intentional; and (4) composed of propositions" (1991b, p. 127).

Buck (1991b) adds that: "[i]n effect, communication proceeds in two simultaneously occurring and interactive 'streams': one biologically structured and non-voluntary, and the other intentional and structured by learning and experience" (p. 128). He goes on to say that:

> [b]eing biologically structured in both its sending and receiving aspects, spontaneous communication is direct. It requires no process of intention on the part of the sender or inference on the part of the receiver. It is a way in which the receiver has direct access to the motivational-emotional state of the sender. It thus answers the other mind's problem. We know certain inner meanings - certain motivational/emotional states - in others because others are constructed to send information directly about these states and we are constructed to receive that information directly and to know its meaning directly. (pp. 133-134)

This view refers to a *preparedness* mechanism that has evolved and is biologically given (Buck, 1984, 1988a; Dimberg, 1983, 1988a; Dimberg & Öhman, 1983, 1996). This view is essentially Darwinian. Dimberg & Öhman (1983) state that: "[f]rom an evolutionary point of view it could be argued that if facial expressions are determined by biologically given 'facial affect programs' (Ekman, 1972), it is likely that humans are also biologically predisposed to decode and react adaptively to these facial stimuli" (p. 160). Expressions which stem from surface acting may be viewed as predominantly symbolic in that they are voluntary with potential leakage of the spontaneous stream which one may try to suppress in the aim of producing a desired expression. On the other hand, expressions which occur after deep acting has been engaged in may be viewed as expressions which internal adjustment has rendered predominantly spontaneous but perhaps potentially less so than the

two remaining categories of expressions which reflect truly and predominantly spontaneous streams of communication.

Given Buck's (1991b) perspective, it appears that only a completely successful attempt at regulation via deep acting can result in a predominantly spontaneous stream of communication. Techniques analogous to deep acting require training (Bloch, Orthous, & Santibanez, 1987; Cole & Chinay, 1949; Stanislavski, 1948/1965) and role-playing ability appears to involve individual differences (see Fletcher & Averill, 1984). Thus, although one may attempt to engage in deep acting, it does not mean that this attempt will be successful because of variations in ability, training, socialization, and other factors which may for instance range from cumulated job stress and numbness to a simple bout of fatigue.

Because emotions are presented as felt and that feelings require effortful adjustment via emotional labor, renders Hochschild's (1979, 1983a) perspective much more comprehensive, less limiting, and more realistic than perspectives based on simple dramaturgy and script theory (Goffman, 1959, 1967; Zurcher, 1982, 1985). Its psychological (intrapersonal) content and the fact that various components of emotions are potentially felt and regulated in this framework affords the possibility that more recent findings such as those which stem from Fridlund's and Buck's work can potentiate Hochschild's account and augment its explanatory power.

However, Hochschild's (1983a) perspective appears somewhat lacking with respect to the Jamesian[73] perspective on emotion. Hochschild (1983a) clearly proposes a sequence which presumes that internal feelings precede emotional expression. This appears somewhat consistent with Buck's (1985) Darwinian perspective which holds that expression of emotion

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[73] Hochschild (1983a) briefly discusses bodily feedback as a third process which may be used to perform deep acting. She states that: "[t]his surface-to-center approach differs from surface acting. Surface acting uses the body to *show* feeling. This type of deep acting uses the body to *inspire* feeling. In relaxing a grimace or unclenching a fist, we may actually make ourselves feel less angry ..." (p. 247). Hochschild (1983a) seems to wrongly assume that bodily feedback can only be used to alter feeling and more precisely its intensity. Recent findings indicate that feedback can be used to generate feeling (McIntosh, 1996). In addition, other findings discussed below indicate that facial feedback performed just as Hochschild (1983a) describes the performance of surface acting can result in feeling. Apart from an endnote in her book, Hochschild (1983a) avoids a discussion of feedback. However, it takes on an important role in the model proposed here.

is simply a readout of underlying experience and that it has no causal role in determining internal states. Vaughan and Lanzetta (1981) suggest that: "[f]rom a communication theory perspective, the important effects of expressive modulation are on the observer" (p. 17). They add that: "[b]ut there may also be significant effects on the actor's own emotional state" (p. 17). Thus, Buck's Darwinian perspective deviates from the Jamesian[74] which emphasizes that feedback from the face and/or body determines emotional experience (e.g., Damasio, 1994; Izard & Malatesta, 1987; Izard, 1990; James, 1884, 1890; Laird, 1974; Mandler, 1975; Manstead, 1988; Tomkins, 1962).

Izard (1990) argues that: "[t]he weight of the evidence suggests that patterns of expressive behavior can be effectively used in the management of emotion experience" (p. 496). The facial feedback hypothesis has been reviewed in detail in previous sections and represents a clear way by which emotions can be regulated (see McIntosh, 1996). That consciously (voluntarily) or unconsciously (involuntarily) produced facial expressions can result in a corresponding emotional state is a notion largely attributed to James (1884, 1890). Nevertheless, the effect of expression on feeling has been observed since antiquity. For instance, Cicero stated that: "I never yet ... tried to excite sorrow, or compassion, or envy, or hatred, when speaking before a court of judicature, but I myself, in rousing the judges, was affected by the very same sensations that I wished to produce in them" (originally quoted in Cole & Chinay, 1949, p. 22; appears in Vaughan & Lanzetta, 1981, p. 17). Recent studies suggest that facial feedback has both social and psychological (intrapersonal) implications. Accordingly, Wikan (1989) found that expression can be used not only for personal but also for social emotion management purposes. This interpersonal impact of feedback on emotion is also a major theme in Hatfield et al. (1994) where mimicry and feedback are presented as a mechanism of emotional contagion.

In light of the reported findings on the effects of facial feedback on internal feeling states of emotion, it is suggested in the proposed model (Figure 9) that service provider facial

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[74] James (1890) emphasized that facial feedback can result in felt emotion. On the other hand, Darwin (1872) only noted this possibility and focused on the evolutionary and biological basis of facial expressions (see McIntosh, 1996).

expressions serve two functions: they are both the output of and the input to emotional experience. The facial feedback hypothesis has been acknowledged in the model by the curved dotted line that is color coded in red. This line relates the four categories of expression encased in the dotted upright rectangle to the provider's emotional state. This line depicts a process whereby expressions of emotion determine or at least contribute to emotional experience; and this, even in the case of surface acting where emotion is simply acted out superficially. Techniques akin to surface acting (e.g., subjects are instructed in simple manipulation of facial muscles to mimic facial expressions of discrete emotions) have shown a potential for triggering emotional experience (internal feeling state and/or physiological reactions) in laboratory settings (e.g., Duclos et al., 1989; Ekman, Levenson, & Friesen, 1983; Laird, 1974; Levenson, Ekman, & Friesen, 1990; Levenson, Ekman, Heider, & Friesen, 1992; Rhodewalt & Comer, 1979). In one study, Pasquarelli and Bull (1951) instructed subjects under hypnosis to display one emotion and experience another. Results indicated that the subjects were unable to experience an emotion which was incongruent with their expressions. Fridlund (1994) argues for a dramaturgical route by which facial action can result in altered emotions. Additional explanations for findings indicating that the facial feedback hypothesis is plausible in that feedback from the face results in activation of other components of emotion have included: conditioning (Buck, 1980); self-perception (Duclos et al., 1989; Laird, 1974 1984; Laid & Bresler, 1992); direct feedback from receptors in facial skin and muscles (Izard, 1990; Lanzetta, Cartwright-Smith, & Kleck, 1976); emotion systems based on central nervous system (CNS) activity where activation of one component of emotion results in the activation of the others (Ekman, 1992a; Izard, 1971, 1977; Levenson et al., 1990); guidance by expressive behavior of a central motor mechanism which activates emotional experience (Leventhal, 1984); and the regulation of venal blood flow in the brain by expressive behavior (Zajonc, 1985; Zajonc, Murphy, & Inglehart, 1989). The various perspectives are not mutually exclusive in that "the influence of the face on emotions is likely multiply determined" (McIntosh, 1996, p. 136). Furthermore, some of these perspectives completely downplay the role of cognition in feedback mechanisms (e.g., Zajonc et al., 1989) whereas others suggest cognitive

involvement (e.g., Fridlund, 1994; Laird & Bresler, 1992). Moreover, the importance of emotional regulation appears in literature indicating its psychotherapeutic uses and benefits (e.g., Gellhorn, 1964; Izard, 1971).

In sum, although regulation via facial feedback is only briefly mentioned as an emotion management method and not expanded on in Hochschild (1983a), it emerges here as one way by which service providers can potentially deal with the conflict between actual feeling states and feeling rules reported in Hochschild (1983a). Facial feedback is a process which may occur unconsciously during the encounter but it is also one that may be consciously engaged in during and after an encounter in an effort to manipulate one's internal feeling state especially when the feeling is unpleasant (e.g., anger, disgust, etc. after an unpleasant encounter).

A multicomponent perspective on emotion (see Dimberg, 1990a; Öhman, 1986; Scherer, 1984a) is adopted here. It has clear advantages over a perspective such as Hochschild's (1979, 1983a) which tends to presume perfect correspondence or covariation between an internal state and expressions of emotion along with a causal sequence which posits that regulation of internal feelings will automatically result in expressive behaviors. Firstly, it permits separable dialectics with respect to each of the two components. This, in turn, is reflected not only in findings which suggest that they are imperfectly correlated (Levethal & Scherer, 1987; Lewicki, 1986; Parrott & Hertel, 1999) but also in bodies of literature which offer a separate focus on each of these components. Secondly, a multicomponent perspective which delineates the internal feeling from the expressive response component of emotion also accommodates recent findings which suggest bidirectionality in emotion components (Zajonc, 1998). This, in turn, not only potentiates various forms of feedback (i.e., that expressive behaviors have an impact on feeling states) but also consequently enhances Hochschild's (1983a) account of emotion by suggesting the possibility of a reversed sequence causal between expressions and feeling states.

6.4.2 Emotional Reactions in the Consumer

Interaction is a context where emotion plays a fundamental role. Interpersonal exchange emerges as both a primary elicitor of emotion and of a response to emotion

(DeRivera, 1984; Guerrero, Andersen, & Trost, 1998; Metha & Clark, 1994; Metts & Bowers, 1994; Miller & Leary, 1992; Schwartz & Shaver, 1987). Oatley and Johnson-Laird (1987) suggest that: "with the exception of fear, which often occurs in modern life as the result of such events as near traffic accidents, the emotions of interest to humans occur in the course of our relations with others" (p. 41). The social nature of emotions such as *embarrassment* (Miller & Leary, 1992) and *anger* (Averill, 1982) is undeniable. Buck (1991a) argues that: "social emotions are basic to all social behavior and are activated in every social encounter" (p. 159). Even Ekman (1993) holds that: "[t]ypically, the events that call forth emotion are interpersonal actions, although the action of other animals, or natural events such as thunder can also call forth emotions" (p. 388). Emotions can be elicited in the absence of social stimuli or outside of interpersonal interaction. However, even these instances of emotion have been attributed to anticipated or imagined interaction (Chovil, 1991; Ekman, 1993; Fridlund, 1991b; Greenwood, 1994; Jakobs et al., 1996, 1997; Leary, 1983; Miller & Leary, 1992). Klinnert et al. (1983) suggest that: "emotional expressions are causal events in the sense that they influence others and pervade almost all social interactions, whether they are between friends, strangers, or enemies" (p. 591). Hence, expressed affect by the service provider is presumed here to cause an affective reaction in the consumer. Different mechanisms for this reaction are proposed and discussed below.

The role of affect on the consumer side of the interaction which constitutes the service encounter seems especially underspecified in the services marketing literature. Affect represents a new arrival in the proposed conceptualizations of service evaluation (Oliver, 1994) and has typically been given a subordinate role in frameworks of consumer behavior (Cohen & Areni, 1991). The importance of emotion in service evaluation appears to be more closely linked to *satisfaction with the encounter* than to *service quality* (see Westbrook, 1987; Westbrook & Oliver, 1991). However, at this point, we do not specify links to service evaluation factors. This will be done in subsequent chapters where consumer affect will be viewed as an independent variable. In the area of consumer behavior, affect has tended to be treated in a fashion which is highly cognitive not only in antecedent factors (appraisals) (see Bagozzi et al., 1999; Bitner, 1990) but also at an operational level where for instance, self-

report measurement approaches implicitly assume conscious awareness of an affective state (e.g., Richins, 1997). In general, such cognitivelly-laden perspectives have clearly disabled investigations of emotion which involve the unconscious processing of stimuli (see Dimberg, 1990a; Öhman, 1999; Zajonc, 1980).

The participation of customers in the service encounter has been well documented (e.g., Czepiel, Solomon, & Surprenant, 1985; Mills & Morris, 1986; Solomon et al., 1982, 1985). Traditionally, the social and interactional behavior of consumers during the service encounter, like that of providers, has been placed within the context of dramaturgy, role theory, and/or script theory[75] (see Otto & Ritchie, 1995). Many examples of this perspective appear in the services marketing literature (e.g., Bateson, 1992; Berry, 1981; Broderick, 1998; Crosby & Cowles, 1986; Czepiel, Solomon, & Surprenant, 1985; Deighton, 1984, 1992, 1994; Goodwin, 1986; Grönroos, 1985; Grove & Fiske, 1983; Grove et al., 1992; Johnson & Zinkham, 1991; Lovelock, 1981; Solomon et al., 1982, 1985; Surprenant & Solomon, 1987).

The possibility that normative constraints that are specific to the service encounter may guide the regulation of the consumer's internal feeling state and thus intervene in the "natural" process of emotion generation on the part of the consumer was first entertained. However, an additional specification within the role theory and dramaturgy perspectives provides an important element which clearly downplays the importance of normative factors with respect to consumers and rests in that customers are afforded greater latitude in their role and behavior than service providers (Bowen & Schneider, 1988). This observation can be taken to imply that this greater latitude extends and encompasses the experience of emotion on the part of consumers. The consumer's *free actor status* (Bowen & Schneider, 1988) may also be inferred from Hochschild's (1983a) work where emotional labor is said to be an integral part of certain occupations and that some organizations do all they can to

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[75] Otto and Ritchie (1995) suggest that role theory and script theory differ in that "the latter focuses on *event* patterns, holds that *behaviour* patterns are scripted and further maintains that congruency with this script forms the basis of customer satisfaction with a given service via disconfirmation" (p. 43). In the former, "customer satisfaction and repeat patronage may be determined solely by the quality of the personal encounter" (Solomon et al., 1985, p. 107). However, both clearly suggest a sociological perspective on the service encounter.

ensure that their employees will engage in this activity. These organizational efforts are directed at employees not at customers. Moreover, the expectation that service providers will engage in emotional labor is clearly present in customers and is often enhanced by company communications; and the inability or unwillingness to do so on the part of the provider often results in dealing with *irate* customers (Hochschild, 1983a). Hochschild's (1983a) descriptions of the consequences of not engaging in emotional labor clearly point to customers who often display non-normative emotional reactions (anger, contempt, expressed dissatisfaction, etc.) to what they view as not being treated as well as expected and not being given the treatment they are owed and have paid for.

That occupational and organizational norms typically do not apply to consumers, the reported reactions of consumers to failures of emotional labor, and the widely held notion that "the customer is always right" reinforce the *free actor status* (see Bowen & Schneider, 1988) of the consumer with respect to the experience and display of emotion during or after the encounter. Hence, no *feeling rule* analogue is therefore included in the model with respect to consumers. Accordingly, Hochschild's interactional theory of emotion appears insufficient to account for the impact of service providers' emotional displays on consumers' internal states. Instead, the possibility that *true* or *unaltered feeling* may be the overwhelming consideration or operant factor on the part of the consumer takes us back to the realm of psychological (intrapersonal) theories of emotion. Although the provider side of our framework involves drawing on Hochschild (1983a) and the sociological flavor of her account, a more psychological or intrapersonal flavor that is less dependent on considerations of social factors seems to be indicated in a specification of the consumer side of the interaction.

Four classes of theories seem especially relevant to explanations of how feeling is determined in the consumer during a service encounter following a display of emotion by the provider. The first, quite obviously, is cognitive and can involve a variety of appraisal theories of emotion (Bagozzi et al., 1999; Lazarus, 1991a; Roseman, 1984; Scherer, 1988b, 1993; Weiner, 1985a, 1986). The second class is much less obvious and rests on the notion of *social contagion* (Marsden, 1998). That emotional contagion can occur during the service

encounter remains a definite possibility. This is suggested by the automatic nature of the process following contact or mere exposure to another person (Hatfield et al., 1992a, b, 1994). The third rests on the preparedness hypothesis (Seligman, 1970) and implies a hardwired preprogrammed response potential to expressive displays in others (Dimberg, 1990a). The fourth is sociological and can involve a perspective based on cultural analysis and/or symbolic interaction (for a discussion of these theories, see Kemper, 1991, 1993). However, as discussed above, the sociological perspective has been used extensively to explain interaction in the service encounter and appears limited. In particular, purist sociological accounts appear rather unsuited for explaining the resultant intrapersonal states of consumers in the service encounter. Allusion to sociological explanation is therefore minimized with respect to the consumer. Hence, this reduces the practical number of possible explanations to at least three[76]. They are reviewed below. Although these explanations appear concurrently in the proposed model (see Figure 9), *primitive emotional contagion* emerges below as the most enabling with respect to the interpersonal perspective adopted here. Not only does it provide an explanatory framework for emotion in the consumer but perhaps more importantly, it is based on elements which explain the dynamic character and synchrony of an interaction.

Despite the wide divergences that are evident in the field of emotion, most investigators of emotion agree that the cognitive appraisal of a situation is crucial to determining experienced emotional states (e.g., Abelson, 1983; Buck, 1991b; DeRivera, 1977; Fridja, 1986, 1988; Lazarus, 1991a; Ortony et al., 1988; Reisenzein & Spielhofer, 1994; Roseman, 1984, 1991; Scherer, 1982a; 1988b, 1993; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1985a, 1986). These theories hold that emotional

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[76] We specify that at *least* three forms of explanation are possible because there are others which are not emphasized here. For instance, the processes of person perception and impression formation (Hamilton & Sherman, 1996) may potentially also provide a way by which emotions may be generated during interaction. Impression formation is typically based on inferences drawn with respect to the dispositional factors of an actor (Andersen & Klatzky, 1987; Newman, 1991) and emotion and personality are closely related domains (Plutchik & Conte, 1997). In addition, the processes of social referencing and social proof can result in a matched emotional reaction on the part of an observer (see Klinnert et al., 1983). Imitation can also result in an emotional reaction (see Magai & McFadden, 1995).

experience is "primarily data driven, caused by something that happens in the current situation" (Wilson & Klaaren, 1992, p. 2). Among the many cognitive theories of emotion, the theory proposed by Weiner (1985a, 1986) (see Chapter One) seems especially relevant to the service encounter (see Bitner, 1990). According to Weiner (1986), "the emotion process begins with the interpretation of an event as a success or failure (that is, the environment is evaluated as 'good' or 'bad')" (p. 127). He adds that:

> [t]his results in a general positive (happy) or negative (sad? frustrated?) affective reaction. If the outcome is negative, unexpected, or important, then attributional processes are elicited to determine the cause of that outcome. Causal attributions and their underlying properties of locus, stability, and controllability in turn generate differentiated affective reactions that are presumed to coexist with the initial broad response. (p. 127)

Outcome evaluations influence general affects such as happy and sad. These diffused pleasant or unpleasant affective states are labeled *outcome-dependent*. Next, an attribution process, if triggered, plays a role in the generation of specific emotions (e.g., anger, pride, ...). Weiner (1986) holds that "increasing cognitive complexity[77] generates more differentiated emotional experience" (p. 121). Weiner's (1985a, 1986) theory was initially developed for achievement situations. However, Weiner (1986) suggests that his theory is generalizable to other situations. In addition, Weiner (1986) specifies that:

> [i]n all these arenas of study, after identifying the negative outcome, the authors determined the perceived cause of that outcome, such as the perceived cause of a need for help, of a crime, or of a failure to quit smoking. Although the specific causes reported vary greatly, both within and between the topics under consideration, they can be described according to their structural properties of locus, stability, and controllability .... The dimensional analysis then furnishes the second mechanism for theoretical generality, for once the structure of the cause is ascertained, its impact on expectancy, affect, and action can be determined. Hence causal dimensions emerge as the key concept fostering theoretical range. (pp. 191-192)

The model proposed herein posits that displays from surface acting (displays

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[77] Cognitive complexity is increased because additional appraisal dimensions based on attribution supplement an initial appraisal along the pleasant-unpleasant dimension. This increase in cognitive complexity is consistent with all appraisal theories in that they generally hold that a combination of appraisal dimensions is necessary for the appraisal process to result in a discrete emotional state (Parkinson, 1997; Scherer, 1988b, 1993). Additional forms of judgment (appraisals) imply more mental calculus.

Category 3) and those which suggest emotional deviance (Category 4) may result in appraisals of failure or unmet expectations. That customers have expectations about how a service provider should behave is an underlying theme of the service evaluation literature (see Oliver, 1996). 'Failure' can thus be conceptualized as unmet expectations with respect to such factors as the valence and intensity of emotional displays (in deviance) or as the display of inauthentic/ungenuine emotions (in surface acting). When triggered, the subsequent attribution process involves an assessment of the perceived cause of the prior outcome over dimensions of attribution (see Russell, 1982) whose combination consequently determines a discrete emotional state (Russell & McAuley, 1986).

Expectancy disconfirmation is a form of appraisal (Scherer, 1988b). Although much of the service quality literature from the 1980s and early 1990s vehemently argued that an expectancy disconfirmation process occurs over specific dimensions of service quality (see Grönroos, 1990; Parasuranam et al., 1988), disconfirmed expectations in interaction can also occur with respect to other aspects of the service delivery and the service provider which are more basic than those proposed in the service evaluation literature.

Individuals develop expectations about what constitutes typical and appropriate communicative behaviors in differing types of social interaction (Levitt, 1991). Expectations reflect norms and represent cognitive structures (Wilson & Klaaren, 1992). Interactional expectancies can involve a variety of target characteristics which include trait-like attributes, state-like or situational attributes, and verbal and nonverbal communication behaviors (Burgoon, 1978, 1983; Burgoon & Hale, 1988; Burgoon & LePoire, 1993; Burgoon & Walther, 1990). Burgoon (1993) states that expectancies frame social situations and "define and shape interpersonal interaction" (p. 32). Moreover, expectancies play a role in predicting dyadic interaction patterns in general and the communication of emotion in interaction in particular (Burgoon, 1983, 1993; Burgoon & Hale, 1988). Expectations aid a person in determining whether or not it is appropriate to display a particular emotion (Burgoon, 1993). In other words, social expectations guide the choice of specific display rules in situations (Andersen & Guerrero, 1998).

Quite similarly to Weiner (1985a, 1986), Burgoon (1993) holds that expectancy

violations elicit emotions and argues that when expectancies are violated, individuals focus attention on the violation. Next, an evaluation of the interaction partner ensues. Evaluation involves an assessment of the partner as rewarding or non-rewarding and of the behavior as positive or negative. In turn, these judgments impact on whether or not the expectancy violation is deemed positive of negative. Burgoon (1993) states that:

> [p]ositive violations, in which the enacted behavior is more positively valenced than the expected, are theorized to produce more positive interaction patterns and outcomes than conformity to expectancies; negative violations, in which the enacted behavior is more negatively valenced than the expected behavior, are theorized to be detrimental, relative to expectancy confirmation. (p. 40)

Positive violations are likely to lead to positive emotions (e.g., joy) and positive behaviors which reflect involvement and intimacy. Conversely, negative violations are likely to result in negative emotions (e.g., anger or sadness) and perhaps effort directed at returning the interaction to a more positive state (e.g., "cheer up") or in reciprocity by displaying negative behavioral patterns (e.g., hostility, anxiety, and/or withdrawal) (Burgoon, Stern, & Dillman, 1995; for similar propositions, see Levitt, 1991; Levitt, Coffman, Guacci-Franco, & Loveless, 1994). Expectations and an expectancy disconfirmation paradigm do not appear explicitly in the model (see Figure 9). Rather, they are subsumed in each of the four streams of communication delivered by the service provider. Hence, whether a stream results in expected/appropriate (normative) emotional displays is an implicit dimension over which the streams vary. The streams can be qualified as either normative or non-normative based on Hochschild's (1983a) discussion.

The appraisal theory component on the consumer side of our model (see Figure 9) is based on Weiner (1985a, 1986). The type of expectations that it involves are with respect to the interactional outcome of the service encounter and more precisely, with respect to the behavior of the provider. Expectations can also be introduced in our model so as to enable a *feeling rule* component on the part of the consumer. Hogan, Jones, and Cheek (1985) hold that norms and rules are the basis of expectation. Wilson and Klaaren (1992) suggest the existence of expectations in regard to how one should feel in a social situation and relate this to Hochschild's (1983a) notion of *feeling rules*. Moreover, they associate the functioning of

this type of expectation to the ambiguity of a social situation. One way to enable the functioning of a feeling rule component on the part of the consumer is to view its role as a top-down modification of a feeling initially generated by a somatic process. Ambiguity can for instance result in the consumer after exposure to a deviant stream of displays by the provider (displays Category 4). However, we argued that the consumer's free actor status (see Bowen & Schneider, 1988) downplays the role of this type of expectation in the service encounter. There do not appear to be as many rule-based constraints on how a consumer should feel during the encounter in comparison to service providers. Entitlement to "proper" and expected service delivery appears to even outweigh the importance of societal norms in the regulation of behavior. For instance, if the consumer is exposed to an angry provider, it is likely that the consumer will feel and express outrage rather than engage in a process of feeling management guided by a rule which may for example suggest that one's own expression of anger is socially unacceptable. Accordingly, the consumer's expectations are likely to revolve more around how the service is delivered and the technical aspect of service rather than how s/he expects or is expected to feel in the service encounter. This is made evident in Hochschild (1983a) where it is suggested that:

> [a] nineteenth-century child working in a brutalizing English wallpaper factory and a well paid twentieth-century have something in common: in order to survive in their jobs, they must mentally detach themselves - the factory worker from his own body and physical labor, and the flight attendant from her own feelings and emotional labor .... Now what happens when the managing of emotion comes to be sold as labor? What happens when feeling rules, like rules of behavioral display, are established not through private negotiation but by company manuals? What happens when social exchanges are not, as they are in private life, subject to change or termination but ritually sealed and almost inescapable? What happens when the emotional displays that one person owes another reflects a certain inherent inequality? *The airline passenger may choose not to smile, but the flight attendant is obliged not only to smile but to try to work up some warmth behind it* [italics added]. (pp. 17-19)

More complex appraisal theories than Weiner's that may also be applicable to the service encounter are those of Lazarus (1991a; Smith & Lazarus, 1993) and Scherer (1984a, 1986). Both can potentially account for episodic occurrences of changes in antecedent appraisals and subsequent changes in emotion (Scherer, 1993). Scherer's (1984a, 1986)

theory offers an ordered and presumably invariant sequence of appraisals called *stimulus evaluation checks*. Lazarus' (1991a) theory associates discrete emotions to particular appraisal components which underlie *core relational themes*. Smith and Lazarus (1993) suggest that the emotion *anger* is associated with the following appraisal components: (a) motivationally relevant, (b) motivationally incongruent, and (c) other-accountability. The appraisals give rise to the core relational theme *other-blame*. On the other hand, the emotion *sadness* is associated to the core relational theme of *irrevocable loss* or *helplessness about harm or loss*. Like other cognitive theories of emotion, Lazarus' (1991a) theory holds that emotion results from an appraisal of events. However, it also relates appraisals to people's needs and expectations. The contextual and interpersonal factors that surround the stimulus event thus contribute to and shape the experience of emotion.

Another cognitive theory of emotion that can potentially accommodate the evaluation of the behavior of service agents appears in Roseman (1984, 1991). Roseman (1984) proposed that "13 or so" basic emotional states reflect differences in combinations of cognitive appraisals. Five dimensions of appraisal were suggested: (a) motivational state (Is the outcome desired?); (b) situational state (Has the outcome occurred or is it occurring presently?); (c) certainty[78] (Is the situation clear? or Was the sequence of events predictable?); (d) causal agent (Were the events caused by myself or others or by the situation?); and (e) legitimacy (Was this outcome deserved?). Roseman (1984) argued that combinations of evaluations on these dimensions will result in a discrete emotional response.

Although the appraisal component of our model (see Figure 9) is based on Weiner's (1985a, 1986) proposed sequence, its appraisal components (in this case, dimensions of attribution) can be reconfigured to incorporate the appraisals and core relational themes suggested in Smith and Lazarus (1993), the stimulus evaluation checks proposed in Scherer (1984a, 1986, 1993), or the appraisal dimensions discussed in Roseman (1984). Bagozzi et al. (1999) have suggested that appraisal theories are the dominant perspective on emotion in psychology and have focused on this array of theories in their review. The impact of such a

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[78] *Certainty* appears similar to what Scherer 1988b and Wallbott and Scherer (1988) have labeled *expectancy*.

paper on the future treatment of emotion in marketing is rather obviously predictable: a slew of papers will soon appear which stress an appraisal theory perspective such as Roseman's (1984, 1991) in a variety of consumption contexts. Reasoned evaluation will be maintained as a paradigm in a variety of research areas in marketing. Components of Weiner's (1985a, 1986) appraisal theory have appeared in earlier models of service evaluation (e.g., Bitner, 1990). Perhaps, Weiner's (1985a, 1986) perspective will now be replaced with Roseman's (1991) because it appears to be the favored theory in Bagozzi et al. (1999).

To explain an emotional reaction in the consumer based purely on cognitive antecedent factors appears limited. Alternatively, the somatic perspective on emotion does not give precedence to cognition in emotion. Chapters One and Three of this work clearly indicate that the somatic perspective on emotion is important for an understanding of the emotion process. The somatic perspective can be delineated into Darwinian and Jamesian stances. Jamesian somatic theory clearly underlies the feedback mechanism presumably involved in emotional contagion (see Chapter Five) and the Darwinian perspective is apparent in Seligman's (1970) preparedness hypothesis which has often emerged in explanations of reactions to the presentation of facial stimuli (Dimberg, 1990a; Dimberg & Öhman, 1996; Smith et al., 1996). Despite its potential relevance to interpersonal consumption situations, the somatic approach in general does not seem in fashion within current marketing thought and practice because of its evident lack of applicability to common consumption situations (except for its contribution to the measurement of emotions, see for example Richins, 1997) whose analysis is more often than not grounded in highly cognitive (conscious) processes. However, the somatic perspective appears especially relevant to the service encounter not only with respect to the provider as evidenced in Hochschild (1983a) but also with respect to the consumer. Although somatic theories involve biological and psychophysiological phenomena, the potential occurrence of preparedness and primitive emotional contagion generally implies that emotions are social. In particular, the proposed mechanism of primitive emotional contagion (see Hatfield et al., 1994) requires interaction or at least exposure to another. Hence, emotional contagion and preparedness are not misplaced in investigations of emotion in the service encounter.

Matched emotions in interaction have been frequently observed by scholars (e.g., Andersen & Guerrero, 1998; Oatley & Johnson-Laird, 1987). For instance, Andersen and Guerrero (1998) state that: "happy individuals seem to promote happiness in their interactional partners, whereas sad individuals' partners seem to become sad" (p. 84). Oatley and Johnson-Laird (1987) hold that: "the social communication of emotions leads each actor to become aware of the other's euphoric feelings, and a euphoric mutual emotion is created. Such emotions act to cement social relations" (p. 46). One process which may explain this matching of emotion is *primitive emotional contagion*. Although, contagion is a phenomenon typically associated with mobs and groups, it also occurs "in the more limited context of dyadic interaction" (Magai & McFadden, 1995, p. 282). Klinnert et al. (1983) pointed out a lack of research on contagion (see also Marsden, 1998) but suggested that "it is well known, though frequently not emphasized, that the emotional expression of one person can elicit contagious emotional responses in another" (p. 58). Emotional contagion has been presented as a form of empathy (Levenson, 1996). However, Bavelas et al. (1986, 1988) argue that affect sharing is more than empathy in that it is also an important and powerful form of nonverbal communication behavior (Bavelas et al., 1986, 1988). In other words, the process of emotional contagion involves an information function.

Recent investigations of emotional contagion refer to somatic processes to explain its generation (see Hatfield et al., 1994). The facial feedback hypothesis has received much attention within this literature as a vicarious mechanism which, through mimicry, mediates emotional experience in a social observer (Bush, Barr, McHugo, & Lanzetta, 1989; Dimberg, 1982; Hatfield et al., 1994; Lanzetta et al., 1976; McHugo et al., 1985; McHugo & Smith, 1996; McIntosh, Druckman, & Zajonc, 1994; Vaughan & Lanzetta, 1980, 1981). Thus, nonverbal behavior may directly result in corresponding nonverbal behavior in an observer through motor mimicry (Davis, 1985; Dimberg, 1982; McHugo et al., 1985) and subsequent facial feedback determines the observer's feeling state (McIntosh, 1996).

Recent findings suggest that matched emotions may occur in observers after unconscious (pre-attentive) processing of affective stimuli (Dimberg, 1990a; Dimberg & Öhman, 1996; Öhman, 1999; Vaughan & Lanzetta, 1980). This perspective deviates from

the highly cognitive content of appraisal theories which overwhelmingly tend to presume conscious evaluations not only in the appraisal dimensions which have been proposed but also on an operational level (Scherer, 1993, 1999). Thus, contagion does not appear to involve reasoned evaluation as do appraisal theories of emotion.

The service evaluation literature has stressed the importance of prior expectations and their (dis)confirmation (e.g., Oliver, 1996; Parasuranam et al., 1985; Taylor, 1995). Expectancy disconfirmation also emerges as a dimension of appraisal in cognitive theories of emotion (Scherer, 1988b). However, prior expectations do not seem have an impact on the occurrence of emotional contagion (Uchino, Hatfield, Carlson, & Chemtob, 1991). Because the type of perception which is involved in vicariously induced affect is pre-attentive (Öhman, 1999), its result is automatic and direct or apparently unmediated/unmoderated by cognition (Hatfield et al., 1994). Moreover, contagion appears to be a rapid phenomenon. Studies/paradigms which have sought to generate an emotional reaction in subjects and avoid conscious processing of stimuli suggest that it typically takes milliseconds for a reaction to occur (see Dimberg, 1990a; 1991, 1994, 1995; Zajonc, 1980).

In our model (see Figure 9), the mimicry and feedback mechanisms which underlie primitive emotional contagion in the consumer are depicted in red. The mimicry aspect of contagion appears as the full curved line and feedback is depicted by the dotted curved line. The four streams of provider displays in the model carry the potential to ignite a vicarious emotional response in the consumer. Chovil (1991) examined the impact of varying levels of sociality (in increasing order: listening to a tape recording; interaction over the telephone; interaction separated by a partition; and face-to-face interaction) on facial mimicry. She found that facial mimicry increased with the level of sociality of the interaction and that face-to-face interaction produced the most mimicry. The service encounter thus offers a social and interactional context where primitive emotional contagion is clearly potentiated; and this, especially in high-contact service occupations (see Hochschild, 1983a). This potential appears even greater when we consider that this process is presumed to be automatic and that it seems to occur after mere exposure to another (Hatfield et al., 1992a, 1994; Marsden, 1998). In addition, contagion effects can be easily and often unintentionally induced within

contexts which involve lower levels of sociality. For instance, Mullen et al. (1986) demonstrated that during the 1986 electoral campaign, the newscaster Peter Jennings (unlike Tom Brokaw and Dan Rather) had subtly displayed more positive affect when referring to Reagan than to Mondale. It was found that voters who watched Jennings on ABC were more likely to vote for Reagan than those who watched CBS and NBC.

Spontaneous communication tends to be nonverbal (Buck, 1984, 1988b, 1991b). Buck (1991b) appears to relate the able use of the spontaneous stream of communication to emotional contagion. He refers to the study by McHugo et al. (1985) where facial electromyographic (EMG) equipment was used to gauge the impact of videotaped smiles and frowns generated by Reagan and Mondale during the 1986 presidential debate. McHugo et al. (1985) found that Reagan's expressions tended to elicit similar facial action in observers whereas those of Mondale did not. Reagan emerged as the more able communicator in his use of nonverbal displays. Commenting on this study, Buck (1991b) states that: "[a]pparently Reagan's expressions had a *direct* [italics added] emotional impact on the viewer, even via videotape ...." (p. 134). Buck (1991b) adds that:

> the "charismatic" politician is the one who most effectively uses available media to arouse emotion. In the radio era of the 1930s and 1940s the politicians with ringing, resonant voices (Churchill, Roosevelt, Hitler) had the edge. This changes with the advent of television, and that change was perhaps heralded by the Kennedy-Nixon debates in the 1960 presidential election campaign: those who heard the debates over the radio thought Nixon won, those who saw them on television gave Kennedy the win .... Arguably, spontaneous emotional expressiveness is at the heart of this style. (p. 135)

Similarly, Stanislavski (1948/1965), in his critique of techniques akin to surface acting, discusses that which a form of acting akin to Hochschild's (1983a) *surface acting* (voluntary rather than spontaneous expressions) does not arouse in an audience and consequently implies that this is precisely what deep acting (spontaneous expressions) can achieve. In particular, he states that: "[y]ou can receive great impressions through this art [surface acting]. But they will neither warm your soul nor penetrate deeply into it" (p. 268). On the other hand, deep acting and its spontaneity seem to carry an effect on the "soul." Stanislavski (1948/1965) adds that to affect human feelings calls for "natural emotions at the very

moment in which they appear before you in the flesh. They call for the direct cooperation of nature itself" (p. 268). If this statement can be taken as metaphorically indicative of the direct effects of contagion, then it clearly implies that deep acting is more effective in inducing feeling in an observer. By transposing these observations and findings to the service encounter, the service provider appears to have an effective tool in spontaneous (nonverbal) communication which can be used to induce a matched emotional state in the consumer.

One may perhaps presume that surface acting is the least likely among the four to arouse affect in the consumer via contagion because the emotions displayed are unfelt. This may potentially be so because of the symbolic (voluntary) rather than spontaneous character of this category of displays. However, given that contagion is automatic and operates through mimicry of expressive behaviors and given the nature and diversity of the stimuli which have been used to induce an empathic response (e.g., photographic stills and video excerpts/vignettes) (see Hatfield et al., 1994; McHugo et al., 1985; McHugo et al., 1991), surface acting still carries the potential to result in emotional contagion on the part of the consumer. However, it is important to note that the resultant emotional state may be congruent with the "true" emotion underlying the display, the emotion that is potentially being suppressed or modified. Thus, if the provider attempts to suppress facial sadness and tries to convey normative good cheer via audio channels (e.g., word content and prosody), the sadness may subtly leak out via mismanaged or incongruent nonverbal indicators in the face (Ekman, 1985; Frank & Ekman, 1997; Frank, Ekman, & Friesen, 1993). These nonverbal indicators may then serve as the basis of contagion (via mimicry and feedback) in the consumer (Hsee, Hatfield, & Chemtob, 1992). Alternatively, the ungenuineness of displays rooted in surface acting may cause the consumer to pay conscious attention to the performance and this may result in increased cognitive complexity which, in turn, may interfere with the automatic and rather unconscious processes which underlie the mechanism of primitive emotional contagion (see Hatfield et al., 1994).

Although substantial research indicates that emotional contagion as a form of empathy results in congruent or matched emotional states in actor and observer, the possibility that a counterempathic reaction may occur in the customer should also be

considered. This appears likely in prolonged service encounters or after multiple encounters with the same provider (i.e., service relationship). Counterempathic reactions involve an incongruent emotional response to an affective stimulus or "discordance between the model's and observer's emotional responses" (Englis, Vaughan, & Lanzetta, 1982, p. 376). A typical counterempathic response involves feeling and expressing joy at the sadness of another (James, 1890). The instigation of counterempathic responses has been related to negative attitudes (antecedent liking or disliking) (e.g., James, 1890; McHugo et al., 1991; Zillmann & Cantor, 1977); competitive vs. cooperative situations (e.g., Lanzetta & Englis, 1989); reward-punishment structures (Aderman & Unterberger, 1977; Englis et al., 1982); and emotional expressions on the part of an actor which are incongruent with an outcome for the observer (Englis et al., 1982). These responses imply the intervention of some form of cognition as attention and/or memory. In the services context, multiple encounters may, for instance, result in a negative attitude toward the provider and the activation of this attitude in subsequent encounters may lead to mismatched emotional reactions on the part of the consumer. For example, although a provider is not liked because s/he appears ungenuine (i.e., fake) in that s/he usually engages in surface acting (e.g., posed smiles, feigned pleasure at seeing the customer, etc.), the provider nevertheless exhibits normative/appropriate displays. However, because of the established negative attitude, these displays may eventually generate a counterempathic response (e.g., anger, disgust, or contempt) in the consumer (see McHugo et al., 1985; McHugo et al., 1991). Alternatively, expressions of emotion which are inappropriate or unadjusted to the outcome for the client (e.g., lawyer smiles after the loss of his client's court case; physician appears happy when announcing to a patient that s/he has a fatal or chronic illness) may also result in a counterempathic response on the part of the client (see Englis et al., 1982).

A reaction on the part of the consumer that is based on *preparedness* (Seligman, 1970) is also possible in the service encounter. Darwin (1872) suggested that emotional expressions were spontaneous and that an analog mechanism for decoding the reactions of others was present across species and that its effects were prewired and automatic. Dimberg (1990a) states that: "[a]n important basis for the presumed biological roots of facial

expressions is their role in the communication of emotion in face-to-face interactions" (p. 482). Darwin's view was extended by Tomkins (1962) and incorporated in the communication theory perspective adopted by Buck (1984, 1988a, 1991b). Specifically, the biological/evolutionary or Darwinian stance on emotion implies that individuals have a hardwired "readiness to *spontaneously* react with specific emotional responses to particular facial expressions" (Dimberg & Öhman, 1996, p. 170). Along the same lines, Seligman (1970) proposed the concept of *preparedness* which suggests that "learning was facilitated by evolutionary derived predispositions to associate more easily some events than others" (Dimberg & Öhman, 1996, p. 151). Dimberg (1990a) downplays the effects of mimicry and feedback on emotion. Rather, he argues that his experiments on reactions to facial displays potentiate the preparedness hypothesis (see also Lundquist & Dimberg, 1995). The findings reported in some of Lanzetta's studies on facial reactions to facial displays also suggest a mechanism based on preparedness (e.g., Lanzetta & Orr, 1986). Smith et al. (1996) offer a review of this research and conclude that a response based on preparedness seems especially relevant to displays of anger and fear (e.g., displayed anger conveys threat and results in fear/anger). Both types of displays are not arbitrary in that they seem to serve clear signal functions (e.g., anger signals threat) much more so than does for instance happiness. Responses to these displays may involve prewired systems which are likely to be the product of evolution and may thus serve basic survival functions such as 'fight or flight' (Dimberg & Öhman, 1996; Öhman, 1999; Smith et al., 1996). A reaction based on preparedness is likely to be automatic and very rapid (Esteves, Dimberg, & Öhman, 1994). It would thus not involve the active participation of cognition but rather pre-attentive processing of the affective stimulus (Öhman, 1999). Among the three response processes discussed in this section, preparedness emerges as the one which involves the least amount of consideration of the sociality of the encounter on the part of the consumer. It appears most relevant to consumer reactions to non-normative displays rooted in emotional or affective deviance (displays Category 4). Table 6 provides a synthesis of the various emotional responses to the four categories of provider displays. It also summarizes the potential for feedback to the provider from each type of response. Feedback mechanisms from the consumer to the service

Table 6

Consumer Emotional Responses to the Four Categories of Provider Displays

Criteria / Display Category	Potential for Triggering Cognitive Complexity (e.g., Attribution) in Consumer	Potential for Emotional Contagion in Consumer	Potential for Consumer Emotional Response Based on Preparedness	Spontaneous or Symbolic Consumer Response	Involvement of Cognition as Attention in Emotion Feedback	Involvement of Pre-attentive Processes in Emotion Feedback
Category 1 (No emotional labor-Normative)	Low	High	Low	Spontaneous	Low	High
Category 2 (From deep acting-Normative)	Low	High	Low	Spontaneous	Low	High
Category 3 (From surface acting-Normative)	High	Lower with perhaps unexpected results whereby contagion may be based on nonverbal leakage of suppressed feeling	Low	Symbolic (Voluntary)	High	Low
Category 4 (No emotional labor-Deviance)	High	High	High if fear or anger was expressed	Spontaneous	Low	High

provider will be discussed in the next section.

Emotion is a syndrome or multicomponent process (Averill, 1980a, b, c; Lang, 1988; Scherer, 1984a, b; Leventhal & Scherer, 1987). An exhaustive view of the emotional response that an interpersonal encounter with a service provider may generate in a consumer should involve consideration of at least some of the following components: "cognitive processes, CNS and ANS activity or changes, expressive behavior, motivational aspects, action tendencies, and subjective feeling states" (Scherer, 1984a, p. 42). Moreover, Averill (1980a) holds that: "[a]n emotion syndrome may include many diverse elements, some of biological and some of social origin, but none of which is essential to the identification of the syndrome as a whole" (p. 308). Some appraisal theorists have attempted to specify the links between antecedent appraisals and other components of discrete emotional states which are typically emphasized by somatic theorists (e.g., Ellsworth, 1991; Lazarus, 1968; Scherer, 1982a, 1984a; 1992; Smith, 1989). For instance, Smith (1989) suggested that the distinct physiological pattern (i.e., autonomic activity) which presumably underlies each emotion is triggered by antecedent appraisal. Many have also suggested that action tendencies are part of the emotion process (e.g., Fridja, 1986, 1987, 1988; Scherer, 1984a, 1988a). In particular, Fridja (1986, 1987, 1988) has stressed the important role of *action tendency* (i.e., the tendency to act) among other components of emotion. Zajonc (1998) purposely avoided providing a definition of *emotion*. Rather, he suggested a definition of *emotional reaction* which broadly reflects the notion of action-tendency and other adaptive emotional responses.

The multicomponent nature of consumer emotion is acknowledged in the model in terms of content rather than process. Except for the impact of antecedent appraisal on emotion, the causal directionality between the other components (which are viewed here as response components) has been left unspecified. Thus, the remaining components are viewed as only concomitant emotional response tendencies (Dimberg, 1990a; Öhman, 1986). To further specify links among the remaining components of emotion is bound to result in controversy in that many inconsistencies become apparent across studies and theories of emotion. Overall, the literature suggests bidirectionality in many components of emotion (see Parkinson, 1987; Zajonc, 1998). The futility of such an endeavor is also indicated in Hatfield

et al. (1992a) where it stated that:

> [e]arly theorists focused on the "sequence" question - which comes first, the cognitive, somatovisceral, or behavioral aspects of emotion? Recent theorists contend that "it depends." Emotional stimuli may well trigger the conscious, somatovisceral, and behavioral aspects of emotion almost simultaneously. (p. 153)

All the emotional response components presented in the model are deemed important in the context of the service encounter. Internal feeling states are likely to carry an impact on subsequent satisfaction with the encounter (Mano & Oliver, 1993; Westbrook, 1987; Westbrook & Oliver, 1991). Expressive behaviors reveal not only how the provider relates to the consumer but also indicate to the provider how the consumer feels. Hence, they potentially enable a dynamic process. Expressive facial action has been posited as the most important indicator of basic emotions in Darwin (1872). Subsequent research predominantly indicates that the face reliably conveys these emotions (see Ekman, 1992a; Izard, 1994) and that facial expressions can generate emotional responses in observers (McHugo & Smith, 1996; Smith et al., 1996). As do the other response tendencies, action tendencies reflect the notion that emotions are functional and that they help individuals respond adaptively to environmental opportunities and challenges (see Fridja, 1986, 1987, 1988; Levenson, 1994). They are specified as tendencies or 'actions manquées' (see Hochschild, 1983a) rather than instrumental behaviors because unlike reflexes which compel us to action (see Ekman, 1984; Leeper, 1970), emotions only incline us to behave in an emotion-congruent manner (Fridja et al., 1989). In the service encounter, action tendencies can for example involve *approach* and *avoidance*. Accordingly, the emotion categories *happiness*, *eroticism*, *tenderness*, and *anger* have been associated with *approach* and those of *sadness* and *fear* with *avoidance* (see Bloch, Orthous, & Santibanez, 1987). Prototype theories of emotion such as that of Plutchik (1984) offer preestablished sequences of cognitions and behaviors for each fundamental emotion. Emotions may thus differentially suggest how one is inclined to behave during and after interaction with the provider.

Physiological concomitants (e.g., heart rate, galvanic skin response, etc.) are related to the level of arousal with which an emotion is felt and expressed. Their measurement requires sophisticated apparatuses (e.g., Dimberg, 1990a). Intensity and other emotional

response tendencies (physiological changes, subjective feelings, and behavioral tendencies) have been presented as individual difference characteristics (Goldsmith, 1993; Gross & John, 1995, 1997; Kagan & Snidman, 1991; Larsen & Diener, 1987) and appear related to broader personality dimensions (see Diener & Iran-Nejad, 1986; Plutchik & Conte, 1997). Thus, each response tendency may occur internally and appear overtly in varying degrees across individual consumers.

6.4.3 Feedback Mechanisms: Sustained Interpersonal Elicitation of Emotions

Service encounters do not end at the first sign of an emotional display by the provider or of an emotional reaction in the consumer. They usually represent purposeful activities which are sustained until the provider has accomplished his/her task and both parties take leave of each other. To substantiate a continued episodic exchange between consumer and provider, three forms of emotion feedback are indicated in Figure 9. They are depicted by the curved green lines. Two are presented as spontaneous and thus rather unconscious on the part of the consumer. They are directly related to consumer emotional responses based on primitive emotional contagion and preparedness. The other involves feedback of a more conscious and voluntary form.

That feedback from the consumer to the provider can result in emotional contagion in the provider is suggested in the model. As in the case of the consumer, the provider is subject to possible counterempathic reactions (see McHugo, Lanzetta, & Bush, 1991). A feedback loop connects the consumer's *emotional behavior* component to the provider's *current emotion* via mimicry (curved and full red line) and feedback (curved and dotted red line). Laird and Bresler (1992) suggest that the self-perception of emotion can be induced via facial and bodily feedback. Like a therapist, the provider can consciously monitor his/her own feelings to determine what the consumer is feeling (Hatfield et al., 1994; Hsee et al., 1992). Jung (1968) states that:

> [e]motions are contagious ... In psychotherapy, even if the doctor is entirely detached from the emotional contents of the patient, the very fact that the patient has emotions has an effect upon him. And it is a great mistake if the doctor thinks he can lift himself out of it. He cannot do more than become conscious of the fact that he is affected. If he does not see that, he is too aloof and then talks beside the point. It is even his duty to accept the emotions of the patient and to mirror them. (p. 155)

The benefits of emotional contagion in a sustained interaction are not limited to matched emotion or empathy. Facial feedback appears to play a role in the formation of dyadic rapport (Capella, 1993). Generally, rapport and empathy (along with underlying and facilitating mimicry and facial feedback mechanisms) have been presented as important aspects for various social functions (Davis, 1982; McIntosh et al., 1994). Hatfield et al. (1992a) hold that: "[o]ne of the benefits of rudimentary emotional contagion ... is the synchronizing of social exchanges" (p. 157). Condon (1982) argues that this synchrony begins very early in development. Davis (1982) holds that interactional systems rely on rhythmic adjustments of communication cues between the participants (see also Chapple, 1982). Bernieri, Reznick, and Rosenthal (1988) suggest that mutual entrainment of interactive non-verbal responses results in synchronized conversational rhythms with others (see also Bernieri, 1988). LaFrance (1982) suggests that posture mirroring increases rapport. Hatfield et al. (1994) hold that: "[i]f partners are to interact smoothly, their speech rhythms must become mutually entrained" (p. 27). The mechanism of primitive emotional contagion thus seems to facilitate and underlie synchronized interaction. Moreover, the smooth flow of positive, congruent, and synchronous behaviors appears as an important source of interpersonal intimacy (Andersen, 1985).

One may perhaps presume that synchrony may be triggered voluntarily or on-command. However, the processes which underlie the mechanism of primitive emotional contagion (mimicry and feedback) are largely unconscious. In fact, findings suggest that *conscious* mimicry appears ineffective in smoothing out an encounter (see LaFrance & Ickes, 1982) and that it is very difficult and probably impossible to engage effectively in conscious mimicry because the naturally-occurring process is microsynchronous, very rapid, and unconscious (Davis, 1985). Alternatively, what seems to be emphasized in enabling synchrony is allowing the functioning of naturally occurring unconscious processes (mimicry and bodily feedback) and attunement to what they generate: an internal feeling state which is likely to reflect that of the other person one is interacting with (Hsee, Hatfield, & Chemtob, 1992). Smith et al. (1996) hold that:

> [f]acial communication does not necessarily represent a conceptual form of

> communication, like spoken or written language, in which symbolic information is transferred from one individual to another through semantically based cognitive operations. Instead, the information conveyed through facial expression is often communicated in a manner that, at times, may approach the direct transfer of subjective emotional feelings. This transfer does not rely on symbolic encoding on the sender side and decoding on the receiver side, but on a process that resembles the phenomenon of physical resonance .... Hence, viewing another's facial expressions may communicate that person's emotional state directly by evoking in the viewer (albeit to a lesser degree) the same physiological processes associated with the emotional state being processed. (p. 243)

Smith et al. (1996) add that: "[t]he neglect of social interaction and context as a major determinant of emotional behavior has been a consequence of simple stimulus-response (S-R) models of emotion elicitation that were en vogue throughout much of this century .... S-R models could not account for the complex regulation and feedback processes that are typical of emotion" (p. 245). Accordingly, contagion renders social interaction a much more dynamic, affectively-laden, and smoother (synchronous) occurrence than suggested by the rather sterile and non-dynamic outcome-based predictions of cognitive appraisal theories whose explanatory power of emotion ends with the person making the appraisals (the consumer in this case). Specifically, appraisal theories appear especially unsuited for explicating emotion in sustained interaction. At a more basic level, most are incapable of even addressing the episodic nature of emotion at the intrapersonal level (Scherer, 1993); and with their focus on intrapersonal factors, none can account efficiently for the interpersonal and dynamic[79] nature of the service encounter. In other words, the occurrence of emotional contagion in the service encounter provides a perspective which suggests that emotion mediates the interpersonal transaction rather than simply exerting an effect on the private consciousness of the consumer as suggested by the appraisal theory perspective (e.g., Bitner, 1990). The inclusion in the model of interpersonal feedback based on the mechanisms which underlie contagion gives it a dynamic character and clearly affords greater interactional

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[79] Scherer (1993) suggests that some cognitive theories of emotion can account for the episodic nature of emotion. As used in Scherer (1993), the term *episodic* implies momentary changes in cognitive appraisal and subsequent changes in emotion. The focus is intrapersonal. On the other hand, the term *dynamic* is broader and suggests an interactional/interpersonal level of analysis where interpersonal feedback mechanisms are involved.

potential than that suggested in Hochschild (1983a) whose account suggests an interactional process based on the consideration of normative social factors.

Our model also acknowledges that the consumer's overt emotional expressions can represent another form of feedback to the provider. This form is indirect, more conscious, symbolic, and thus less "primitive" (see Hatfield et al., 1994) than contagion. Because of the greater levels of cognitive involvement which it implies, this form of feedback is related at the conceptual level to the appraisal theories of emotion. As a service transaction unfolds, overt feedback from the consumer may be assessed and weighed; and may consequently determine whether the emotions expressed initially should be abandoned, maintained, or revised (Mars & Nicod, 1984; Tansik, 1985). In our model, a green feedback loop connects the expressive component of the consumer's emotion process to the service provider's feeling rule. As a frame or situation changes, different feeling rules may apply (Hochschild, 1979, 1983a). This social context effect appears realistic. For instance, if a consumer displays joy then the provider is perhaps consciously prompted to also display joy by smiling. On the other hand, if a consumer displays anger, some service occupations/organizations may require a congruent response (e.g., police services; prostitutes, etc.) whereas others may involve a more sympathetic[80] response (e.g., therapy professions).

This second form of feedback is presented as an interchange of interpretations. It is therefore cognitively-laden (Buck, 1984). Accordingly, this perspective holds that an emotion is first experienced in one person and then expressed via video and audio channels which results in it being transmitted as information to another person who consciously decodes the message and reacts to its content. In turn, the target's emotional reaction must be encoded and then transmitted, and so on. Buck (1991b) states that:

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80 Various definitions of empathy appear. Eisenberg and Miller (1987) define empathy as "an affective state stemming from apprehension of another's emotional state or condition and which is congruent with it" (p. 292). Levenson's (1996; Levenson & Ruef, 1992) definition of empathy as a form of emotional contagion appears to involve less cognitive processing than that implied in Eisenberg and Miller (1987). On the other hand, Wispé (1991) holds that sympathy involves two aspects: "first, a heightened awareness of the feelings of the other person and, second, an urge to take whatever actions are necessary to alleviate the other person's plight" (p. 68). Hence, sympathy clearly emerges as the more cognitive process and appears discriminant of emotional contagion which has been characterized as direct, automatic, and rather unconscious in its antecedents (Hatfield et al., 1994).

> it follows that during interaction the other must function in ways analogous to a biofeedback device. If expressive behavior is more accessible to others than it is to the expresser, one of the means by which an individual comes to understand his or her feelings or desires, and to control his or her expressive displays, is by interpersonal feedback: by the response to those displays on the part of others. (p. 129)

Buck (1991b) adds that:

> an expression is all we need to know what has happened on the other end. To know about what has happened on the other end we need in addition emotion education [which leads to social and emotional competence]. (p. 134)

Unlike the feedback from contagion, Buck's (1991b) communication theory perspective involves higher levels of cognition as awareness. That both forms of feedback can be processed concurrently is suggested by the fact that the brain can process streams of information in parallel mode (Gazzaniga, 1985). From our reading of Hochschild (1983a) and Rafaeli and Sutton (1987, 1989, 1990; see also Rafaeli, 1989a; Sutton, 1991), the stagebound, scripted, and role-related display of emotion that is suggested in these perspectives appears to involve this second form of feedback rather than the type associated with emotional contagion.

The training and socialization that providers receive in certain occupations (see Hochschild, 1983a; Parkinson, 1991) may sensitize them to pay attention to and process these more overt signals and consequently adjust their feelings and subsequent signals in accordance with what is proposed in Buck (1991b). Thus, the more indirect (cognitively mediated) form of interpersonal feedback to an employee provides a way to monitor his/her expressions of emotion from impressions/interpretations of their impact on the consumer (Saarni, 1982). Appearing too emotional or showing too much emotion appears to generally carry negative connotations such as an association with irrational behavior or being out of control (Halberstadt, 1991; Hall, 1984, Hochschild, 1983a; Shields, 1987). In some cultures, the overt and uncontrolled expression of emotion is frowned upon (Markus & Kitayama, 1991). If this is reflected in the consumer, the provider may then consciously adjust his expressions.

To potentiate the type of interaction/exchange suggested in Buck (1991b), attention

is clearly required from both parties involved in communication. Accordingly, Buck (1991b) states that:

> [i]n general, the expressiveness and the attention patterns of the individuals involved determine the efficiency of social biofeedback. The ability of A to respond to C's feelings appropriately is first determined by the clarity of C's spontaneous expressions and the degree of A's attention to those expressions. If C is expressive and A is attentive, A will come to know C's emotional state directly via spontaneous communication. A may then express his or her reactions to C's display in a variety of ways. A may spontaneously express feelings about C's display. If A is expressive and C is attentive, C will come to know A's affective response to C's display via spontaneous communication .... The net result of such experience is that the individual comes to respond more or less effectively in social contexts, being able to control his or her displays more or less appropriately. This occurs in animals as well as humans .... In humans, an additional level of complexity is added by linguistic competence. (pp. 130-131)

Attention is one hallmark of the conscious and cognitive (Bowers, 1984; Öhman, 1999). In Buck's (1991b) perspective, attention is placed on the other. Thus, as the transaction unfolds, this perspective holds that each participant consciously gauges the other based on streams of visible affective information. However, Parkinson (1996) holds that in reality, "the coordination of emotion and of emotional signals may be less cognitive and stagebound" (p. 668). Hence, Parkinson (1996) suggests an exchange based on some more direct effect such as emotional contagion. Hatfield et al. (1994) suggest that certain occupations (e.g., therapy-related) may sensitize practitioners to emotional contagion effects. Unlike in Buck (1991b), where attention is focused on the other, the contagion literature implies awareness of the other by focusing on the feelings one is experiencing. Attention is thus directed at the self with respect to the emotion that the other generates in us. The determining micromomentary stimuli (e.g., the other's facial expressions) may apparently be processed unconsciously or pre-attentively (Öhman, 1999).

In most service occupations, emotional contagion remains a mysterious occurrence and the training that is given to service providers does not refer to its determining mechanism or its diagnostic capabilities of the customer's feeling state. However, evidence suggests that individuals can be trained to use this type of information effectively (see Bloch et al., 1987; Goldstein & Michaels, 1985). Hatfield et al. (1994) state that: "[c]linicians have long

observed that therapists rely on both their conscious analytic skills and their own emotions for information as to what the clients are feeling second to second" (p. 95). Reik (1948) argued that a therapist can methodically become attuned to the feelings of his client and then detach himself. He suggested that this process involves: (a) *identification* (paying attention and getting absorbed); (b) *incorporation* (internalization of the other's experience); (c) *reverberation* (experiencing what the other experiences but also paying attention to his/her own affective and cognitive reactions), and (d) *detachment* (moving away and regaining a separate identity). In a like vein, Tansey and Burke (1989) suggest that therapists may respond to the emotions of clients in two ways: (a) concordant identification or feeling exactly what the client is feeling (e.g., expressed sadness results in sadness in the therapist) and (b) feeling complementary emotions (e.g., feeling hurt after a display of anger).

Emotional contagion has been presented as a form of empathy (e.g., Levenson, 1996). Levenson and Ruef (1992) argue that at least three meanings can be associated to the term *empathy*: "(a) knowing what another person is feeling ...; feeling what another person is feeling ...; and (c) responding compassionately to another person's distress ...." (p. 234). Moreover, Levenson and Ruef (1992) discuss *empathic accuracy*. They state that: "[w]e believe that the most useful definition of empathy would emphasize the ability to detect accurately the emotional information being transmitted by another person" (p. 235). However, the more conventional means of assessing another's emotional state as suggested in Buck (1984, 1991b) appears less automatic and thus more conscious than contagion. Buck's process may result not in a "true" empathetic response but rather in one that is merely sympathetic or complementary. *Sympathy* represents "compassion or concern stimulated by the distress of another" (Levenson & Ruef, 1992, p. 234). Similarly, Gruen and Mendelsohn (1986) hold that:

> [r]esponsiveness to the emotional state of another plays a fundamental role in defining and shaping patterns of human interaction. This responsiveness may be essentially cognitive in nature, as when we recognize the meanings of various emotional displays, or may entail, as well, an emotional response of one person to the emotion perceived in another-and, specifically, the response of empathy and sympathy .... empathy as an emotional response entails a correspondence of positive or negative tone ... or a matching of affect, between an observer and the person being

> observed .... Sympathy, on the other hand, does not involve a reproduction of the emotion perceived in another but is rather, a response of compassion or concern evoked by the plight of another. Unlike empathy, which may be manifest in any emotion, sympathy is a specific emotional state. (p. 609)

This line of thought somewhat rejoins Gottman's (1979) findings which suggested complementary patterns of emotion in interaction in well adjusted couples (e.g., negative expressions of emotion by the actor were followed by reassurance from the observer). However, husbands and wives of unadjusted couples appeared to catch the others' emotions. This finding was later confirmed in Levenson and Gottman (1983) where it was found that satisfied couples were less likely to catch one another's emotions while engaged in "hot" discussion and hence to get angry or upset whereas dissatisfied couples tended to exhibit similar or converging ANS activity during unpleasant exchanges.

Complementarity as a social ability appears closely related to what Buck (1991b) calls *emotional competence* which stems from learning or *emotional education* (Buck, 1991b). Buck (1991b) argues that: "[s]ocial competence is the ability to deal effectively with other persons; emotional competence is the ability to deal with the internal environment of one's feelings and desires" (p. 131). He adds that: "[g]enerally, social and emotional competence are mutually supportive: accurate emotional communication would tend to foster the ability to deal both with other persons and with one's own feelings and desires ...." (p. 131). From Buck's (1991b) discussion, emotional competence does not appear to involve considerations of individual differences as do discussions of *empathy* and *empathic accuracy* (e.g., Levenson, 1996). Moreover, its definition involves a focus on the self rather than the other.

On the other hand, Hatfield et al. (1994) relate contagion/empathy to Salovey and Mayer's (1990) concept of *emotional intelligence* which is defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189). This construct involves a domain that is broader than that of *emotional competence*. Thus, we appear to be dealing with two different forms of feedback: one that is automatic, direct, innate and variable across individuals, and seems to involve perception without awareness and another, that is less

automatic, indirect, more conscious, and which can be learned as a social skill.

More generally, the use of *affect as information* (Buck, 1984; McDougall, 1908) at the intrapersonal and interpersonal levels is suggested by the discussion above. The feedback mechanisms proposed herein are partly consistent with what Buck (1985) referred to as *Emotion III*, an element of Prime Theory[81]. *Emotion III* represents the level at which one recognizes and makes use of emotion. Emotion thus becomes a source of information. The functional perspective on emotion in particular presents emotion as a phenomenon which arises in the context of goal-directed activity (e.g., Abelson, 1983; Buck, 1985; Epstein, 1984; Fridja, 1986; Fridja, Kuipers, & ter Schure, 1989; Mandler, 1984; Roseman, 1984; Scherer, 1984a; Schwarz, 1990; Schwarz & Clore, 1988; Zajonc & Markus, 1984) and hence, directly or indirectly suggests the information function of feelings. This function has been described in many ways. For instance, Zajonc (1980), from a functional perspective, presented emotion as something which functions to indicate one's goals and values (i.e., preferences) and one's current position vis-à-vis these goals and values (see also Batson, Shaw, & Oleson, 1992). Similarly, Fridja (1986) refers to them as *relevance signals*. In a like vein, Zajonc and Markus (1984) present feelings as *soft representations*. Unpleasant feelings appear to inform us about failures or some form of impending harm whereas pleasant feelings suggest success and benefits. In Buck's (1984) perspective, feelings provide a *progress report* on how beneficially or harmfully things are proceeding. We appear motivated not only to get rid of harmful objects but also to dispose of negative or harmful feelings albeit their informative value. Conversely, we are also motivated to gain material benefits along with emotional benefits or the pleasant feelings that inform us of success (see also Myllyniemi, 1997). The information function of emotion has been differentiated from the information function of moods (see Batson et al., 1992). Batson, Turk, Shaw, and Klein

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[81] Buck's (1988b) Prime Theory involves motivational, cognitive, and emotional aspects. Primes represent biologically-based and specialized processing systems that exist in a hierarchy of primary motivational/emotional systems. Motivational potential is manifested in three different ways: *emotion I* reflects adaptive homeostatic bodily responses that are not accessible to others; *emotion II* represents expressive responses that are accessible to others; "subjective emotion III responses are present only when internal feedback about the state of the prime is important for self-regulation" (Buck, 1991b, p. 106). Thus, the latter are accessible to self.

(1995) suggest that emotions add three things to our understanding of values and goals:

> First, at the simplest level, emotions add a second channel of information, supplementing information based on rational belief and inference. Second, emotions provide a validity check on beliefs because emotions are not subject to self-deception, although beliefs about emotions are (e.g., 'I'm not afraid' or 'I am not angry!'), which complicates manners. Third, because they involve physiological arousal, emotions are attention getting. The information they provide is hot ... indicating not simply what exists, but what is important and how important it is. If people did not care (i.e., have values), they would not feel (i.e., have emotions), but if they did not feel, they would not know nearly as much about for what and how much they care. (p. 301)

Buck (1984, 1985) limits his notion of *affect as information* to streams of information that characterize a more conscious exchange based on the reciprocal encoding and decoding of emotional cues. However, this notion appears applicable to the empathic response suggested by the emotional contagion literature when the employee, like a therapist, is trained to become aware of his/her emotion as a likely reflection of the customer's emotion and to consequently monitor his/her feelings so as to know what the customer or client is feeling (see Hatfield et al., 1994). Hsee et al. (1992) state that:

> [c]linicians have identified two techniques for gaining information about clients' emotional states: (1) they can consciously try to assess clients' emotional states and/or (2) they can monitor their own emotional reactions during the therapeutic hour, hoping to "feel themselves into" their clients' emotions. Usually, clients' self-reports are in synchrony with their facial, vocal, and postural expressions of emotion. But, what happens when they are not? We speculated that when faced with conflicting messages, clinicians may well *think* one thing and *feel* another: Their conscious appraisals may be heavily influenced by the clients' self-reports; their own emotional reactions may be more influenced by clients' facial, paralinguistic, and postural expressions of emotion. (p. 119)

Somewhat similarly, Batson et al. (1995) differentiate between a typical view of emotion as information and the information that individuals can gain about others via *empathy*. Hence, both forms of feedback can be involved in the use of affect as information. The main difference between the two processes may be conceptualized along the *hot-cold* metaphor which often appears in discussions on cognition and emotion (e.g., Leventhal & Scherer, 1987; Sorrentino & Higgins, 1986). The hotter direct process is feedback from contagion whereas the communication theory-based mechanism represents a colder indirect

process involving attentive processes. Both can be used to smoothen the encounter by an injection of understanding which is not only cognitive (Buck, 1984) but also of the heart if one pays attention to emotional contagion effects. These differences also bring forth the distinction offered in Bowers (1984) between *perceiving* and *noticing*. The contagion effect is direct and involves *perception* (simple perceptual exposure to stimuli which may be unconscious or occur outside of awareness) (see also Zajonc, 1980, 1984) whereas the process suggested by Buck (1984, 1991b) involves *noticing* which implies conscious processing and thus higher levels of cognitive involvement (see also Nisbett & Wilson, 1977; Öhman, 1999).

With respect to the service employee, previous research points strongly to social factors (i.e., norms, scripts, etc.) as a guiding dimension of behavior. Hochschild's (1983a) interactional theory extends this sociological perspective by suggesting that the provider's feelings may also be used as a signal which is subsequently compared to a normative feeling rule and then adjusted accordingly. The contagion literature offers another source of information to service providers: the consumer's feelings. If accessed via a focus on one's own feelings which presumably result from feedback from reflected expressive behavior[82] during interaction, they may provide strong insight into how a service encounter should proceed; and if used, this information clearly carries with it the potential for a smoother and more dynamic interaction. Training and socialization in organizations and occupations involved in affectively-laden transactions should not only revolve around a focus on overt expressive behavior. This should also involve showing employees how to focus on their own feelings and how this may bring into awareness the consumer's feelings. If used, this information clearly has the potential to result in more satisfying and efficient encounters.

Finally, we propose that preparedness may also be a process by which an emotional reaction is generated in the provider especially if the consumer displays anger or fear (see Smith et al., 1996). A third green feedback loop emerges from the consumer's *expressive*

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[82] Laird et al. (1994) suggest that individual differences appear not only with respect to whether mimicry will occur when exposed to another but also with respect to whether mimicry will lead to emotional contagion.

behavior component and joins 'preparedness' on the provider side of the model. If the provider regulates the ensuing emotion (e.g., anger), a normative response may ensue. If not, s/he may appear as a deviant (Hochschild, 1983a). An irate customer may thus via preparedness rather than contagion generate anger in the provider. Darwinian-based characterizations of the immediate response that is likely to ensue hold that it will tend to be rapid, automatic, spontaneous, and unconscious in its antecedents (Dimberg & Öhman, 1996). Unlike contagion, we do not hold that preparedness carries a stream of information that the provider can use to regulate his behavior in a sustained manner. Preparedness is likely to result in an immediate reaction that will probably be not normative (e.g., angry response to anger displays in consumer) and may or may not be subsequently modulated at the feeling rule and/or the display rule levels of regulation. Unlike the mechanisms which underlie contagion, the feedback from preparedness is likely to involve an immediate stimulus-response type of reaction based on the firing of a neural program. Hence, it appears incapable of sustaining a dynamic and synchronous exchange denoting rapport.

6.4.4 The Role of Consumer Culture

Culture has a significant impact on each component of the tripartite conception of the mind: emotion, cognition, and motivation (Markus & Kitayama, 1991). In the consciously mediated form of feedback presented in the model, regulation via display rules[83] is suggested as a possibility on the part of the consumer. The variability in display rules with respect to the consumer is attributed to variability in sociocultural factors (Averill, 1980b, 1982, 1984; Ekman & Friesen, 1969b; Ekman et al., 1982; Markham & Wang, 1996; Matsumoto, 1989, 1990, 1991, 1992b; Mesquita & Fridja, 1992). Ekman and Friesen (1969b) hold that display

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83 Although we indicated in Section 6.4.2 that no feeling rule analogue was indicated for consumers because of the greater latitude afforded to them within the service encounter, the importance of sociocultural modulation of the consumer's expressive component via display rules is nevertheless suggested. The box labeled 'display rules' in the model indicates that they are most relevant to consciously mediated responses in the consumer. However, they may also be involved in feedback due to the other more direct and automatic processes (emotional contagion and preparedness). Hence, the 'display rules' box extends over the feedback loops from these processes to indicate that display rules may modulate these responses. This would result in top-down modification of "naturally-occurring" emotional responses. Nevertheless, we clearly hold that display rules are more pertinent to the more consciously mediated and thus indirect form of feedback.

rules reflect cultural norms and govern when, where, and how specific emotions are to be expressed. Three of the four proposed display rules revolve around the modulation of the intensity of expressions of emotion (i.e., neutralization, attenuation, and exaggeration). With its culture antecedent (*consumer culture* in the model), the *display rules* element in the consumer side of the model represent the two components of the proposed consumer emotion process that are rooted in a sociological tradition. As discussed in Chapter Two, *cultural analysis* with its focus on rules and norms represents one of three distinguishable sociological perspectives on emotion (Kemper, 1991, 1993). This perspective is reflected in Averill's (1980a, b, c; 1982, 1984) social constructivist theory of emotion which stresses the role of learned rules (i.e., the social constituents of emotion syndromes) in determining emotional reactions.

A recent trend in psychology has involved a move from a universalist to a differentialist perspective on emotion (see Markham & Wang, 1996; Scherer & Wallbott, 1994). This perspective clearly discounts similarities in emotion phenomena across cultures (e.g., Boucher, 1979; Gergen, 1985; Gudykunst & Ting-Toomey, 1988; Kitayama & Markus, 1994; Markus & Kitayama, 1991; Mesquita & Fridja, 1992; Russell, 1994; Wierzbicka, 1994, 1995) and introduces notions and findings from anthropology and sociology into psychology-based frameworks of emotion (see also Russell, Fernandez-Dols, Manstead, & Wellenkamp, 1994). In this perspective, Kitayama and Markus (1994) suggest that:

> [n]o doubt, emotions are comprised of a myriad of physiological, neurological, and psychological components. Many of these component processes may be demonstrably hardwired. Nevertheless, by themselves, these processes are not emotions. Rather, the components may be combined and accorded their divergent functions and forms through social and cultural processes by which individuals try to accomplish, collectively and personally, a form of adaptation and adjustment to their own immediate sociocultural, semiotic environment ... emotion and culture are mutually and reciprocally related. (pp. 1-2)

The notion that some emotional expressions are produced voluntarily and that these expressions are acquired by social learning and then guided by culturally-bound *display rules* has been supported in many studies (e.g., Boucher, 1977; DePaulo & Friedman, 1998; Ekman & Friesen, 1969b; Ekman, 1972; Gudykunst & Ting-Toomey, 1988; Matsumoto,

1989, 1990, 1991; Triandis, 1994). Ekman (1972) stressed the importance of cultural factors in modifying (not in determining) facial expressions (for a similar argument which does not dismiss universality, see also Biehl et al., 1997). Ekman (1972) points out that: "learned habits about controlling the appearance of the face (display rules) can and often do intervene between the triggering of the facial muscles by the facial affect program and a visible change in facial appearance" (p. 216). In Ekman's perspective, display rules introduce cultural variability but are presented as regulating and overlaying natural displays of emotion. Although they may be suppressed, natural displays of emotion are viewed in the Darwinian perspective as energized and pushed forth or squeezed out from one's insides (see DePaulo & Friedman, 1998; Terwogt & Stegge, 1994; Zajonc, 1998). Ekman (1984), in a review of his studies, suggests that cultural variability as evidenced by the use of display rules, appears when a person is in the presence of another. Hence, the concept of *display rules* suggests an interpersonal perspective on emotion. The mere sociality (see Chovil, 1991) of the service encounter implies a potential for the activation of display rules on the part of the customer and of variation in display rules due to cross-cultural differences across customers. More generally, the incorporation of a culture-specific component in the model acknowledges cultural variability in consumption (see Laroche, Kim, & Tomiuk, 1997, 1998, 2001).

From a communication theory perspective, Buck (1984, 1988a) argued that nonverbal communication involves two simultaneous streams that are separate but interactive: (a) the spontaneous and (b) the symbolic (see also Buck, 1982). The spontaneous stream is biologically-based and has been observed across species. Accordingly, it is evolved and thus law-based, suggests preparedness for predetermined action, is not intentional, is geared for survival purposes, and implies that its meaning (i.e., ability to decode) is inherited and it can therefore be interpreted easily and directly by the receiver (see Darwin, 1872). On the other hand, symbolic communication is: (1) culturally patterned and therefore learned, (2) "based upon symbols that have an arbitrary relationship with their referent" (Buck, 1988a, p. 344) and thus variable across settings, (3) potentially intentional, (4) propositional, and (5) rule-based. Hence, symbolic communication appears to underlie Ekman and Friesen's (1969b) notion of *display rules* (see Sypher, Davenport-Sypher, & Haas, 1988).

The learned symbolic sort of communication that is guided by sociocultural rules rather than biological laws may outweigh or override signals of the spontaneous variety. Culture can therefore provide members with a repertoire of affective responses to stimuli (Jenkins & Kamo, 1992) that is not limited to the inherited responses individuals of diverse cultures and species may share at birth and which are therefore biologically prewired (Ekman, 1977). Some findings have suggested that display rules (Ekman & Friesen, 1969b; Ekman, 1972, 1992a) tend to depend on how a situation is perceived and that these perceptions or appraisals of situations are influenced by culture (Ellsworth, 1994; Mauro, Sato, & Tucker, 1992). That culture does impact the appraisal process is further indicated in Biehl et al. (1997) where it is suggested that sociocultural factors may be involved not only in expressing emotion (i.e., display rules) but also in the judgment of emotion in that their findings "highlight the importance of *learned rules of emotion judgments* [italics added] that differ from culture to culture" (p. 16) (for a discussion of culture-specific rules of decoding, see also Buck, 1984). With respect to the role of decoding differences between cultures, Biehl et al. (1997) add that:

> [t]hese tendencies may exist not necessarily in the general emotion category used to classify an expression, but rather in the exact semantics and general affective meanings associated with that category label. Thus, while cultures will all tend to view each emotion as that emotion intended, differences in agreement levels among cultures will occur because of differences in the semantic or affective meanings and associations of the emotion terms used as response alternatives. These latter differences comprise what may be considered culture-specific rules of decoding emotions, and would explain why agreement levels are often substantially higher than chance yet variable across countries at those high levels, as obtained in this and other studies. (p. 16)

Some studies have reported that certain kinds of events tend to elicit similar emotions across cultures (e.g., Brandt & Boucher, 1985; Scherer, Summerfield, & Wallbott, 1983; Scherer, Wallbott, Matsumoto, & Kudoh, 1988). Additional evidence of the role of culture in emotion points to differences in the nature and patterns of antecedent events leading to emotion (see Mesquita & Fridja, 1992; Scherer & Wallbott, 1994).

In our model (see Figure 9), *consumer culture* determines *sociocultural norms* which, in turn, carry an impact on the *cognition as attentive appraisal* contained within the lower

dotted rectangle. Sociocultural norms also impact the consumer's *display rules*. That culture does not immediately impact the pre-attentive perception that results in preparedness rejoins purist universalist accounts which hold that emotion involves preprogrammed responses; and this especially in the case of basic or fundamental emotions (see Ekman, 1982; Izard, 1977, 1994; Öhman, 1999; Scherer & Wallbott, 1994). It is also assumed that culture will not carry an immediate impact on the mechanism of primitive emotional contagion because of its automatic and direct nature. That display rules can serve to modify in a top-down fashion the output of consumer emotional displays is suggested by the *display rules* element overlaying the paths of the three forms of interpersonal feedback. However, the effect of display rules on expressive output is presumed to be strongest in the case of the symbolic feedback that is based on cognitive interpretations (see Buck, 1991b). The weaker but still potential effect of display rules on the spontaneous forms of feedback from contagion and preparedness is indicated by the dotted lines which extend the *display rules* box over the two streams of feedback. Emotion expression emerges here as something rooted in inherited biological factors (preparedness) or in the mechanism of primitive emotional contagion but also as something that can be shaped by cultural factors (Fridja & Mesquita, 1994). The acknowledgment of these possibilities rejoins differentialist research findings (e.g., Biehl et al., 1997; Ekman, 1994; Izard, 1994; Russell, 1994; Triandis, 1994) and provides an additional element for our interdisciplinary perspective on the consumer emotion process.

6.4.5 Individual Differences in Interpersonal Expressivity, Perceptivity, and the Self-Perception of Emotion

Individual difference or trait variables typically intervene in a variety of psychological processes (Baron & Kenny, 1986). Many of the components of emotion have invited discussions based on individual differences (Cacioppo, Uchino, et al., 1992; Cooper et al., 1992; Friedman & Riggio, 1981; Izard et al., 1987; Katkin, 1985; Larsen & Diener, 1987; Larsen, Diener, & Cropanzano, 1987). Because emotion impacts on such a wide variety of intrapersonal and interpersonal processes (e.g., Diener, 1984; Ekman & Davidson, 1994; Salovey, Mayer, & Rosenhan, 1991; Snyder, 1987), these dispositional differences need to be discussed in the context of the emotionally-laden variables proposed in the model.

Given the emotional contagion content of the model, variables which appear related to this process not only as an outcome for the consumer but also as feedback for the provider, involve the general notions of emotional (a) perception and (b) expressivity. According to Hatfield et al. (1994), "some people (the Typhoid Marys of this world) may well possess a natural ability to infect others with the 'virus' while others (the Marcel Prousts) stand especially vulnerable to contagion" (p. 128). Empathy has been presented as an individual difference characteristic (Davis, 1983; Hogan, 1969; Mehrabian & Epstein, 1972). The ability to be infected by others (susceptibility to emotional contagion) is a form of empathy (see Levenson, 1996) and involves trait-like variation (Doherty, 1997, 1998; Laird et al., 1994). Conceptually related constructs are *emotional sensitivity*[84] (Snodgrass, 1985, 1992; Snodgrass, Hecht, & Ploutz-Snyder, 1998) and *empathic accuracy* (Ickes, 1993). Mimicry and feedback do not guarantee that an emotion generated in this manner will be felt. A variety of theories link a person's expressive behaviors to an internal feeling state (e.g., Ekman, 1992a; Laid & Bresler, 1992; Leventhal, 1980; Zajonc et al., 1989).

The theory proposed by Laird is based on the notion of self-perception (Laird, 1974, 1984). Laird et al. (1994) suggest that individual differences may appear at two levels. One level involves "whether in fact everyone is equally likely to spontaneously mimic the behavior of others" and the other, "whether mimicry will lead to emotional contagion" (p. 233).The latter appears to be a function of whether a person is more inclined to pay attention to self- produced or situational cues. Laird et al. (1994) state that: "[i]f a person who was most responsive to self-produced cues mimicked the emotional behavior of another, we would expect that person to feel the other's emotion as well. However, a person who was more responsive to situational cues would presumably be unaffected by his or her own behavior, and would feel little" (p. 233). Moreover, the capacity to read one's own facial expressions appears dependent on various physiological mechanisms and structures of the

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[84] Snodgrass et al. (1998) argue that as originally presented (see Snodgrass, 1985, 1992), the *interpersonal sensitivity* paradigm consisted in measuring "two different types of interpersonal sensitivity: (a) the impression one is making on the other person [i.e., feelings and thoughts] and (b) how the other person is feeling about herself or himself [i.e., feelings and thoughts]" (p. 238). However, the concept was used in subsequent work as though it referred primarily to an interpersonal "perception skill" (e.g., Aries, 1996; DePaulo, 1993; Kenny, 1994; Kenny & DePaulo, 1993).

skeletomuscular systems of the face which also vary from person to person (Rinn, 1984, 1991).

The ability to infect others involves emotional expressivity or expressiveness. *Emotional expressivity* or the facial and postural changes that typically accompany the conveyance of emotion and result in contagion in an observer via mimicry and feedback has also been presented as dispositional (Cacioppo, Bush, & Tassinary, 1992; Ekman, 1972; Friedman, Prince, Riggio, & DiMatteo, 1980; Friedman & Riggio, 1981; Gross & John, 1995, 1997; Gross & Muñoz, 1995; Kagan, Reznick, & Snidman, 1988; Kring, Smith, & Neale, 1994; Plomin, 1989; Sullins, 1991; Tassinary, Cacioppo, & Green, 1989). Research in expressivity has revolved around various issues which have included: (a) the relation of nonverbal behavior to autonomic arousal (e.g., Levenson et al., 1990); (b) the perception of emotion in others (e.g., Zuckerman, Hall, DeFrank, & Rosenthal, 1976); (c) gender differences (e.g., Hall, 1985); (d) the ability to produce affective displays dramaturgically or on-demand (e.g., Berenbaum & Rotter, 1992); (e) the internal feeling state or subjective component of emotion (e.g., Ekman et al., 1980); and (f) communication and social skills (e.g., Buck, Losow, Murphy, & Costanzo, 1992; Riggio, 1986). Expressivity has tended to be measured by judges' assessments of the communication accuracy of emotional displays. Pencil and paper measures have generally tended to be simplistic, conceptually ambiguous, lacking in content validity and in coverage of the entire domain, time consuming in clinical settings, and have involved unestablished levels of reliability and validity (Kring et al., 1994).

Some definitions of expressivity tend to be more specific than others and include such factors as the "desire to excite and captivate others" (Friedman et al., 1980, p. 348). On the other hand, the definition provided in Kring et al. (1994) implies a less specific domain and emphasizes a general disposition: "*emotional expressiveness* refers simply to the outward display of emotion, regardless of valence (positive or negative) or channel (facial, vocal, or gestural)" (p. 934). Similarly, Gross and John (1997) state that "an individual is emotionally expressive to the extent that he or she manifests emotional impulses behaviorally" (p. 435).

Three fairly rigorous and recent measure development studies of expressivity were

identified (Gross & John, 1997; King & Emmons, 1990; Kring et al., 1994). Gross and John (1997) proposed the *Berkeley Expressivity Questionnaire* (BEQ) and suggested that emotional expressivity involves three facets: (a) impulse strength, (b) negative expressivity, and (c) positive expressivity. The general strength of emotion response tendencies is reflected in *impulse strength*. The two remaining factors reflect "the degree to which such tendencies are typically expressed as [positive or negative] manifest behavior" (p. 436). The relations among the three dimensions appear in Figure 10a. Gross and John (1997) take a functional perspective on emotion which acknowledges regulation of emotional expressive behavior. They propose that: "emotion occurs when external or internal input is processed in such a way that an emotion program is triggered (e.g., sadness or amusement). Once activated, the emotion program generates response tendencies (including physiological changes, subjective feelings, and behavioral impulses) that prepare an organism to respond adaptively to environmental challenges or opportunities" (p. 435). This view appears very similar to that in Izard (1972, 1977). Furthermore, it is argued that emotional responses stem from tendencies to act in that emotions which do not necessarily compel a response as do reflexes (see Fridja, 1986, 1987). They add that: "[f]or this reason, feeling is not always revealing: Emotional response tendencies may or may not be expressed as visible behavior" (p. 435). The emotion-generative model they propose is reproduced in Figure 10b. It is useful in understanding individual differences in expressivity in that individual differences can potentially appear in several aspects of the proposed process. Gross and John (1997) state:

> [f]irst people's day-to-day experiences vary enormously, thereby providing extremely different inputs to their emotion programs. Second, these differential inputs may be diminished or magnified by the way they are appraised by the individual. Third, research on temperament suggests that there are important individual differences both in the activation thresholds of emotion programs and in the emotional response tendencies that result (Goldsmith, 1993; Kagan & Snidman, 1991). Finally, there may be important individual differences in the modulatory "output filter," that is, differences in how any given response tendency is translated into behavior. (pp. 435-436).

King and Emmons (1990) developed the *Emotional Expressivity Questionnaire* (EEQ). Like Gross and John (1997), they proposed a three-factor structure which included: (a) expression of positive emotion; (b) expression of negative emotion, and (c) expression

Figure 10a

Relations Among The Three Facets of Emotional Expressivity

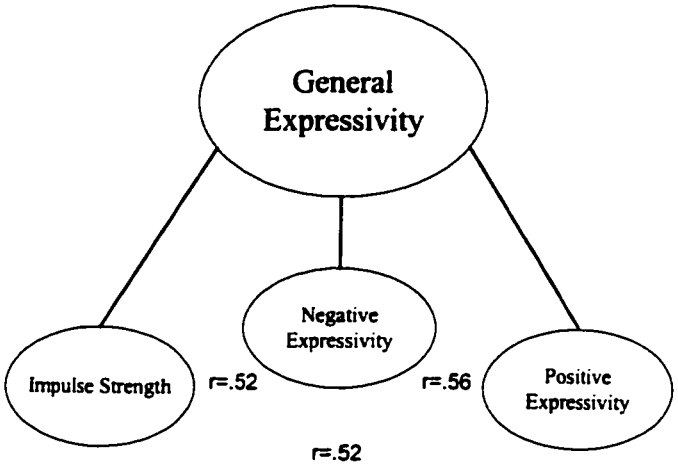
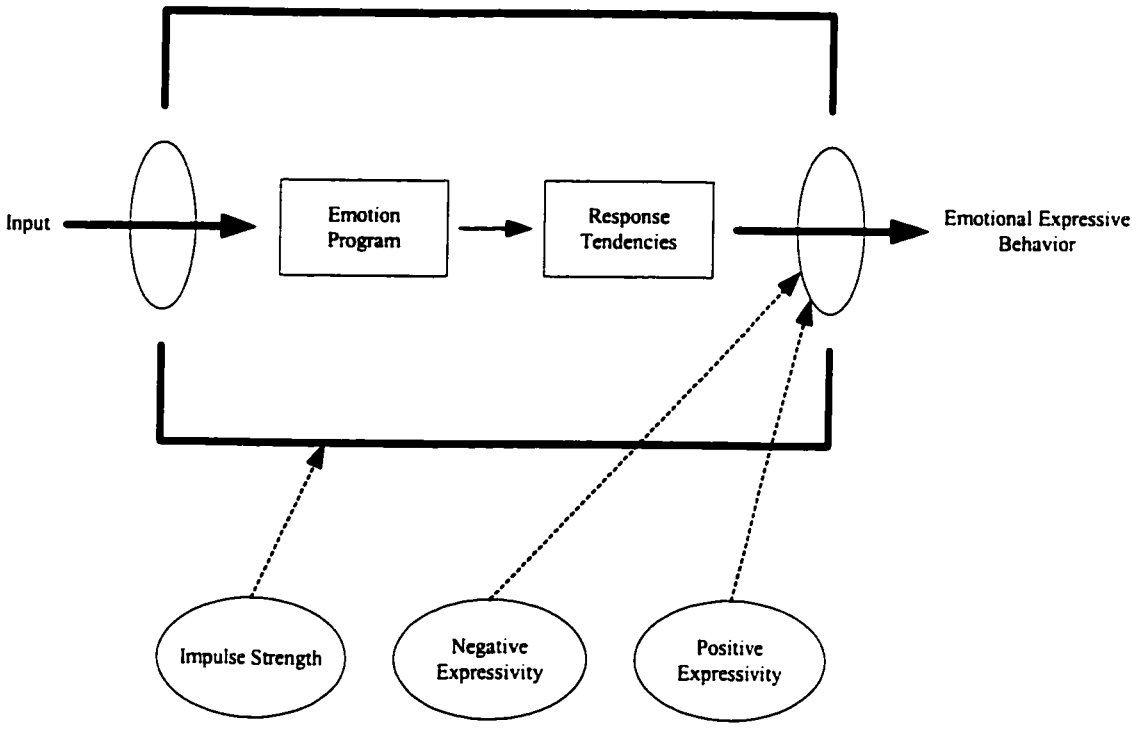


Figure 10b

An Emotion-Generative Model and Facets of Emotional Expressivity



Source: Gross and John (1997)

of intimacy. On the other hand, Kring et al. (1994) put in question the validity of this approach and argued that a more general unidimensional measure would be better suited to a dispositional conceptualization of expressivity. Accordingly, they proposed the *Emotional Expressivity Scale* (EES). Unlike the EEQ and the BEQ, the EES does not assess the motivational aspects to express emotion nor does its item content refer to the valence of emotions.

In our model of the emotion system (see Figure 9), concepts which stress the perception of emotion in self and other and the expressive concomitants of internal feeling states are relevant not only to the provider but also to the consumer in that both are posited to experience emotional contagion and both express and interpret (albeit pre-attentively) the emotional information provided by the other in a dynamic fashion. The fact that these processes involve dispositional differences can further complicate the proposed model because these factors are likely to appear as intervening variables (Baron & Kenny, 1986) in the consumer emotion process and in subsequent feedback from consumer to provider, and vice-versa. For reasons of parsimony, they were intentionally omitted from the already cluttered model presented in Figure 9.

At another level, acknowledgment of individual differences enables the screening of employees with respect to their empathic and expressive abilities. Additional individual difference factors which may potentially intervene in the interaction between provider and customer are many. They may include such factors as *power* (dominance) (Hsee, Hatfield, Carlson, & Chemtob, 1990) and *affiliation* motives (Gump & Kulik, 1997) (for paper and pencil measures n-power and n-affiliation, see Jackson, 1999) and some of the facets which underlie some of the five factors of personality. Especially relevant are facets of the *extraversion* factor (e.g., warmth, gregariousness, assertiveness, and the tendency to experience positive affect) and facets underlying the *agreeableness* factor (e.g., trust, straightforwardness, altruism, and tender-mindedness) (for discussion of the Five-Factor model and related measures, see Costa & McCrae, 1991). The importance of these factors is stressed because of their particular relevance to and salience in interpersonal situations (e.g., Wiggins & Pincus, 1992; Wiggins & Trapnell, 1996).

6.4.6 Advantages and Disadvantages of the Emotion System Model

The proposed model generally addresses Rafaeli and Sutton's (1989) claim that: "better theory and research are needed to help us understand the consequences, as well as the causes, of the emotions expressed by organization members" (p. 3). Thus, the model tackles the need for theory in a fairly exhaustive and conceptually grounded fashion. Hochschild's (1979, 1983a) account of emotion management clearly surpasses those which are contained to simple dramaturgy (Goffman, 1959, 1967) or mere impression management (DePaulo, 1992; Leary, 1994; Schlenker, 1980; Snyder, 1974, 1979, 1987) in that it is interdisciplinary and hence considers internal processes. These limited perspectives underlie the work of Rafaeli and Sutton (1987, 1989, 1990) who accordingly contain their analyses of emotion on the job to expressive factors. Hochschild's (1979, 1983a) work also surpasses that of purist psychological perspectives on emotion which generally present it as a private and personal phenomenon (Parkinson, 1996) in that she has clearly stressed a view of emotion that is not person-centered but rather rooted in social factors and interaction. In turn, the model proposed herein generally adopts this view[85] but also surpasses in many ways the treatment of emotion in the service encounter as discussed in Hochschild (1983a).

First and foremost, it considers the target of such displays, the consumer. Hence, the model is truly interactional and interpersonal. Secondly, the model conceptualizes the different streams of emotional displays discussed in Hochschild (1983a). The streams of emotional displays are shown not to only include emotional labor-based expressions but also two streams of communication based on unaltered (unregulated) emotion. Four more or less

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[85] Our characterization of emotion as an interpersonal phenomenon suggests a social psychological rather than a purist psychological or purist sociological perspective on emotion (see Miller & Leary, 1992; Parkinson, 1996). In reference to purist psychological perspectives, Miller and Leary (1992) state that: "[w]e assert that our discipline's traditional conceptualization of the origins and effects of emotions has too often been single-mindedly person-centered. Emotions are often regarded as response potentials that reside within individuals and that, once elicited by a variety of impersonal or social events, influence the individual's cognitions and behavior. This view ... emphasizes the internal, personal effects of emotions at the expense of a richer understanding of their social, interpersonal effects" (p. 202). They go on to say that: "[n]ot only do emotions typically emerge from interaction with other people ... but the manner in which emotions are expressed can substantially determine the outcomes of interactions." It is hoped that an enhanced understanding of emotion in the service encounter was provided here by expanding on the person-centered view of emotion in psychology and on the socius-centered view of emotion is sociology.

conceptually discriminant categories of displays emerge. Emotional deviance appears as an unwillingness or an inability to regulate internal feeling and/or to suppress/modulate expression which, in turn, appears related to an autonomous orientation (see Deci & Ryan, 1985a, b). When it is engaged in by the provider and anger or fear are displayed, it is argued that these displays may result in a hardwired preprogrammed response based on *preparedness*.

Thirdly, an important enhancement with respect to Hochschild's (1983a) perspective on the provider emotion process rests in presenting emotion as a multicomponent process (Averill, 1980a, b, c; Scherer, 1984a). Hochschild (1983a) focuses on internal regulation and assumes a one-to-one correspondence between the internal feeling state and expressive components of emotion. In reality, these components are not perfectly correlated and thus represent different measurable aspects of emotion (see Dimberg, 1990a; Lang, 1978, 1988; Leventhal & Scherer, 1987; Parrott & Hertel, 1999). This is acknowledged in the model proposed herein by not presuming that compliance with feeling rules results in an automatic and corresponding compliance with display rules. In addition, the model reflects bidirectionality in relations among the components of emotion (see Zajonc, 1998). Moreover, the proposed model suggests that the salience of components varies between the provider and consumer. With respect to the provider, social determinants of internal feeling states and expressive behaviors are stressed as in Hochschild (1983a). Specifically, the impact of social factors on emotion regulation emerges as perhaps the most important aspect of the provider's emotion process. However, with respect to the consumer, the roles of social and regulatory influences appear less important and less intentional. This reflects the consumer's *free actor status* in the service encounter (see Bowen & Schneider, 1988).

What does take precedence with respect to the consumer as a target of the emotional displays of the provider is how consumer emotion is generated and three distinct processes are highlighted: (a) cognitive appraisal, (b) primitive emotional contagion, and (c) preparedness. The first involves conscious processing whereas the latter two are likely to be based on simple pre-attentive perception and are thus potentially unconscious in their perceptual antecedents. Accordingly, two different levels of information processing are

proposed in the model. The delivery of unexpected emotional displays such as those which stem from surface acting or affective deviance appears to invite increased cognitive complexity and may consequently trigger a complex appraisal process (see Weiner, 1986). On the other hand, a smooth or uneventful service encounter based on rapport, spontaneity, and mutual entrainment appears to rest on the mechanism of primitive emotional contagion (Hatfield et al., 1994). To increase the likelihood of such an encounter, the model proposes the use of appropriate and spontaneous emotional displays by service providers (i.e., displays which stem from deep acting or displays which are appropriate but unregulated).

Fourthly, cross-cultural differences in expression norms and display rules (e.g., Ekman & Friesen, 1969b; Markus & Kitayama, 1991; Matsumoto, 1989, 1990, 1991; Matsumoto & Assar, 1992; Mesquita & Fridja, 1992) are acknowledged on the part of the consumer. Violations by a provider of culture-specific expression norms may result in increased cognitive complexity on the part of an unacculturated consumer. In turn, this may result in a cognitively mediated emotion process on the part of the consumer (see Averill, 1980a, b, c). For instance, an exuberant display of emotion is typically not well frowned upon by individuals of collectivist cultures (Markus & Kitayama, 1991) and may result in making an unacculturated customer (for a discussion of immigrant adaption, see Berry, 1990) uneasy and confused rather than triggering a spontaneous emotion process based on primitive emotional contagion.

Fifthly, the model augments the provider emotion process described in Hochschild (1983a). It includes not only elements that have been discussed in Hochschild (1983a) but incorporates elements from a functionalist perspective such as facial feedback (James, 1890) and others from a communication theory perspective on emotion (Booth-Butterfield & Booth-Butterfield, 1990; Buck, 1984, 1991b). By doing so, the facial feedback hypothesis emerges not only as a way to establish rapport and synchrony between provider and consumer via empathy (or emotional contagion) but also as a form of emotion regulation on the part of the provider that is only briefly discussed and somewhat dismissed in Hochschild (1983a). Moreover, a self-perception process (Laird & Bresler, 1992) of the provider's feelings is suggested here which reveals the client's feelings to the provider. One can learn

to focus on one's own emotions as reflections of those of another (see Hatfield et al., 1994). Potentially unconscious emotions (see Öhman, 1999) can perhaps with training be brought into consciousness. This element of the model also avoids reference to obscure Freudian signal functions (cf. Hochschild, 1983a).

Sixthly, by including the consumer as a target of emotional displays, the proposed model conceptually grounds and thus enables empirical tests of often anecdotal and speculative accounts of the impact of emotional displays on customers and their evaluation processes. In most instances, these accounts have relied on qualitative methodologies such as participant-observation, directed interviews, or exploratory quantitative (correlational) research (see Mars & Nicod, 1984; Parkinson, 1991; Rafaeli & Sutton, 1987, 1989, 1990, 1991; Sutton, 1991; Van Maanen & Kunda, 1989). The need for empirical testing is further stressed by simple assertions which for instance hold that "[n]onverbal behavior is less accessible to actors than to observers" (DePaulo, 1992, p. 206) and that our expressions are gauged by attending to the reactions or commentaries of others (e.g., Saarni, 1982). In light of this, the consumer's reactions emerge here as a benchmark for assessing the impact of various forms of emotional behavior which underlie the delivery of various aspects of service by frontline employees. The consumer's affective and cognitive reactions can subsequently be used as independent variables in models of service evaluation.

Furthermore, the proposed model appears to invite less criticisms of excessive cognitivism which surround theories of emotion that are purely cognitive in their antecedents (see Scherer, 1993) and it does not "blend emotion onto cognition" as is typically the case in attempts to introduce emotion in models of consumer behavior which, in turn, are mainly cognitive (Cohen & Areni, 1991). Instead, it offers two alternate mechanisms to emotion that are not based on cognitive appraisal but rather involve pre-attentive (unconscious) processes: *emotional contagion* and *preparedness*. Because of the feedback to the provider which partly rests on unconscious processes, the model potentially achieves a truly episodic and dynamic character. Most appraisal theories have failed to address episodic changes in appraisal and subsequent emotion at the intrapersonal level (Scherer, 1993). Among the three proposed processes of consumer emotion, *cognitive appraisal* with its roots in psychology is perhaps

the process with the least potential for explaining the dynamics and episodic nature of emotion in interaction or at the interpersonal level. This lacuna at the intrapersonal and interpersonal levels rests in the stimulus-response format of appraisal theories (Scherer, 1993). On the other hand, *primitive emotional contagion* is the process that is perhaps most suited among the three for providing an explanation for the occurrence and exchange of emotion in interaction. It clearly places emotion in the realm of interpersonal phenomena and appears perhaps most relevant to "uneventful" or smooth encounters where matched emotional states are likely to occur (see Andersen & Guerrero, 1998; Capella, 1981; Hatfield et al., 1994; Parkinson, 1996).

The proposed model also represents a multilevel system in that intrapersonal and interpersonal feedback loops are specified (see Smith et al., 1996). That three different interpersonal feedback mechanisms are proposed provides for theoretical flexibility but also addresses diversity across occupations. For instance, some providers are trained to rely directly on the more unconscious variety of feedback from contagion (e.g., social support- and therapy-oriented occupations). This direct means to *affect as information* involves attention on the self as a way to bring the feelings of the other into one's awareness. In other professions in which the delivery of services is potentially less affectively-laden, providers may rely on a more indirect (conscious) use of emotional cues (e.g., salesperson). This indirect use of *affect as information* involves conscious attention on the other rather than on the self (cf. Buck, 1991b; Hsee et al., 1992) and most likely involves cortical structures (see Scherer, 1993). In still other professions, preparedness may be relied on. Reactions based on this form of feedback appear potentiated and useful in law-enforcement and in professions such as those of doormen/bouncers whose actions with an irate or violent customer often involve spontaneous expressions of anger/dominance and a preparedness to fight. This "primal" process appears associated to subcortical structures (see Scherer, 1993; Way & Masters, 1996).

When affect is thought of in terms of its information function, the model not only acknowledges that cognition and intrapersonal affect provide information (Lazarus, 1991a) to the consumer and the provider but by acknowledging and including emotional contagion,

it enables each participants to access the feelings of the other. Thus, affect becomes an interpersonal construct with a directly (cognitively unmediated) accessible interpersonal information function. This constitutes a category of *affect as information* that has only recently been suggested in mainstream psychology (Batson et al., 1995; Hatfield et al., 1994) but has until now not been discussed in the services literature. In addition, the model appears to potentially provide a path through the current debate in the field of emotion with respect to whether facial displays of emotion communicate an underlying emotional state or are a function of social context (see Fridlund, 1991a, b, 1992a, 1994). In our perspective, emotional displays can be both depending on whether displays which stem from surface acting or from the three other proposed categories are engaged in by the provider. Displays which stem from surface acting are especially reflective of the social context (Fridlund, 1994) or of the level of sociality (see Chovil, 1991) of the encounter. They are contrived and symbolic. From a biological/Darwinian perspective, these displays emerge as rather arbitrary or not biologically induced. On the other hand, the remaining categories of displays, and especially those which are unmodulated, emerge as rather non-arbitrary in this perspective. Ultimately, the model suggests and acknowledges the "power of faces" in interaction (McHugo & Smith, 1996). On the other hand, this was not presented as an important consideration in Hochschild's (1983a) interactional theory.

Additionally, among those involved in the field of emotion, some psychologists (e.g., Biehl et al., 1997; Chovil, 1991; Ekman & Friesen, 1969b; Fridlund, 1990, 1991b, 1992a, b, 1994; Jakobs et al., 1996, 1997; Jones et al., 1991; Miller & Leary, 1992; Parkinson, 1996), some sociologists (e.g., Kemper, 1991, 1993), and most social constructivists (e.g., Averill, 1980a, b, c, 1982, 1985; Harré, 1986; Hochschild, 1983a; Mandler, 1990, 1992) who have addressed emotion have repeatedly argued that a complete theory or account of emotion must not only accommodate intrapersonal processes (e.g., cognitive appraisals, autonomic responses, etc.) but also the social, and/or cultural, and/or interpersonal processes that evoke or regulate the experience and/or expression of emotion in particular social, cultural, or interpersonal settings. Accordingly, Kemper (1991) states that "there are no emotions that are purely internal or context free ... hence there are no emotions not rooted in a historically

specific environment as a functional adaptation to it, as a beneficial or noxious response to it" (p. 303). We have attempted here to provide an interdisciplinary account which acknowledges the social and interactional nature of emotion (e.g., Andersen & Guerrero, 1998; Metts & Bowers, 1994; Miller & Leary, 1992; Parkinson, 1996). However, we have also specified distinct intrapersonal processes (e.g., cognitive appraisal, mimicry and feedback, etc.) by which emotion can arise, be sustained, and reflected to the other person in interaction following exposure to emotional stimuli. No one single perspective appears sufficient to account for the *emotion system of the service encounter* and its interpersonal, episodic, and dynamic nature. Hence, the proposed model integrates and provides multiple and optional paths to emotion in the service encounter. These paths appear contingent on whether the encounter is smooth (uneventful) or whether some form of failure occurs. In the case of the former, emotional contagion or the occurrence of matched emotional states appears potentiated. If some form of failure occurs in service delivery cognitive appraisal (see Folkes, 1984, 1988) or preparedness is suggested as the mechanism of emotion.

More in relation to the services marketing and management literatures, the elements discussed above combine to address a variety of issues which have been raised in the past. Primarily, we find that our model portrays the service encounter in a radically different manner from perspectives typically based on dramaturgy and role theory (e.g., Broderick, 1998; Czepiel, Solomon, & Surprenant, 1985; Deighton, 1994; Grove et al., 1992). Specifically, in providing a focus on emotion, our model clearly deviates from the "strong behavioural perspective" which underlies role theory (see Broderick, 1998, p. 348) and dramaturgy (see Grove et al., 1992). With their focus on behavioral repertoires (e.g., Dobni et al., 1997), these perspectives appear especially limited in providing insight into the intrapersonal reactions of consumers to service encounters and in explaining the inner workings of synchronous exchanges based on mutual entrainment. The traditional view holds that both service personnel and customers require direct contact and both participate in the production of services (Chase & Tansik, 1983). Both are thus typically presented as being involved in the *service encounter* as well as in the production of service (e.g., Bateson & Hui, 1992; Grönroos, 1990; Mason, Mayer, Ezell, Laroche, & McDougall, 1997; Zeithaml

& Bitner, 1996). However, the proposed model extends this view from one that is based on behavioral repertoires to another which stresses an emotional involvement reflected in the internal feeling state and expressive components of emotion which in reality are not perfectly correlated (see Lang, 1978, 1988; Leventhal & Scherer, 1987; Öhman, 1986; Parrott & Hertel, 1999). In turn, the multicomponent perspective on emotion adopted here augments the operationalizability of emotion as it is treated in the model (see Dimberg, 1990a; Öhman, 1986). From a measurement perspective, the model can be taken as a guide for future assessments of provider and consumer emotions. In other words, the model points to whether aspects of either emotion process are to be assessed with respect to expressive and/or phenomenological components of emotion.

The model also addresses quality control issues by specifying four streams of communication by which emotions can be conveyed to the customer. Three of the proposed streams represent expressions of appropriate/expected emotions and this makes quality control issues a little less elusive in the context of services (e.g., Bateson, 1989; Bitner & Zeithaml, 1988; Brown & Swartz, 1989; Parasuranam et al., 1988). Deviant emotional behavior is to be avoided for, in all likelihood, it has a detrimental effect on service evaluation. By sensitizing employees to the notion that affect is information may result in a more able delivery of service. In this perspective, the provider side of the model quite generally rejoins the prescriptive framework of *Do 's and Don 't 's* suggested by Bitner's work on critical incidents (Bitner et al., 1990, 1994; Zeithaml & Bitner, 1996). It also specifies a process based on contagion for the Bitner et al. (1990, 1994) prescription of *showing empathy* in the service encounter and also addresses *empathy* as a dimension of service quality (see Parasuranam et al., 1988). Relatedly, *personalization* (Surprenant & Solomon, 1985) and *adaptability* (Schneider & Bowen, 1984) are also addressed by the dynamic nature of the model in that feedback allows for adjustment on the part of the provider.

As in Hochschild's (1983a) framework, the proposed model implicitly addresses authenticity issues (Ashforth & Tomiuk, 2000; Erickson, 1995; Erickson & Wharton, 1997). Authenticity clearly underlies interactional quality. Inauthentic displays may lead to loss of patronage (Grove et al., 1992) and should thus be avoided and monitored. Authenticity-

inauthenticity emerges here as a dimension of the four proposed streams of communication. Three of the four categories of displays are presented as truly "felt" and spontaneous. Only one emerges as potentially inauthentic (i.e., displays which stem from surface acting) in that it involves feigned or contrived displays of emotion. On the other hand, discussion of inauthentic displays appears inevitable in the level of discourse of the dramaturgical (Grove et al; 1992) and role theory (Broderick, 1998) perspectives simply because they cannot address internal functioning to the extent that an interactional and interdisciplinary theory such as the one proposed here. These theories place authenticity in "backstage settings" and inevitably discuss *seemingly authentic displays* and the actor's skill in conveying a managed, seemingly genuine, or pseudo-authentic impression before an audience (e.g., Goffman, 1959). They often place the discussion of authenticity within the perspective of multiple selves (e.g., Rhodewalt & Agustsdottir, 1986; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997; Tice, 1992). In our perspective, the issue of identity is somewhat bypassed with emphasis on internal and interactional considerations related not to self-presentation but rather to the regulation of emotion, an intrapersonal process which is triggered by interpersonal and social considerations. This process is reflected and gauged in repeated impacts of provider displays on the consumer over the encounter and thus places the consumer in a position of judge of the authenticity of the provider. Clearly, discussion of felt emotion, emotional labor, and its consequent impact on the consumer requires a much deeper and multifaceted level of discourse than that which stems from dramaturgical metaphor or role theory perspectives.

The proposed model also provides suggestions and guidance for the organization/design of service delivery systems (Shostack, 1984, 1987) by specifying emotionally-laden provider behaviors and dependent customer outcomes which, in turn, can ultimately and to some extent be managed by taking stock of the mechanisms proposed in the model. Specific attention is suggested with respect to the behavior of employees and their individual ability in generating an empathic response (Batson & Olson, 1991; Davis, 1983; Levenson, 1996) which, in turn, is positioned as a strategic tool for the organization that provides affectively-laden services. This aspect is also related to recruitment procedures and training programs for employees. High contact employees can, for instance, be screened on

this ability via a number of short and easily administered measures[86] such as the Affective Sensitivity Test (Kagan, 1978), the Emotional Contagion Scale (Doherty, Orimoto, Hebb, & Hatfield, 1993; Doherty, 1997), the Autonomic Reactivity Scale (Klein & Cacioppo, 1993), and other measures of affective sensitivity (see Snodgrass et al., 1998; Kenny, 1994). Employees can also be screened on their ability to express emotion or emotional expressivity (see Gross & John, 1995, 1997; Kring et al., 1994) which is not merely a function of self-presentation[87] (e.g., Briggs, Cheek, & Buss, 1980; Snyder, 1974, 1979) but is rather more closely related to scores on such scales as the Affective Communication Test (Friedman, Prince, Riggio, & DiMatteo, 1980). The Facial Expressiveness Scale also appears as a good candidate for gauging nonverbal expressivity (Klein & Cacioppo, 1993). The conceptual domains of expressivity also seem to somewhat overlap with those which underlie the Affective Orientation Scale (Booth-Butterfield & Booth-Butterfield, 1990). This latter scale is not mentioned in relation to contagion in the literature (see Hatfield et al., 1994). However, its conceptualization is based on *affect as information* and its communication theory background clearly make of this scale an ideal instrument to assess an employees ability to use affect as information of the variety provided via contagion. The scale stresses: (a) awareness of emotion and (b) use of emotional cues.

Hatfield et al. (1994) warn that certain organizations naively train individuals to consciously mimic the expressions of customers/clients in the hope that this will calm them or put them at ease. They hold that in the case of irate customers, this practice may result in violence rather than calming; and this, especially if a mutual emotion process based on

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86 If unpublished, the self-report measures subsequently mentioned appear in Hatfield et al. (1994).

87 Booth-Butterfield and Booth-Butterfield (1990) found no correlation between their scale and *self-monitoring* which is closely associated to the notion of self-presentation (Snyder, 1974, 1987). Rather, *affective orientation* was related to *conversational sensitivity* (Daly, Vangelisti, & Daughton, 1987) and *femininity* (Bem, 1974). The lack of correlation with the self-presentational aspect (self-monitoring) is clearly indicative that we have embarked on a different discourse than that of impression management, dramaturgy, and role theory and that it thus deviates from the self-presentational notion of *social actor* or *face work* à la Goffman (1959). We are in fact touching upon intrapersonal processes in an interpersonal communication context. *Affective orientation* (Booth-Butterfield & Booth-Butterfield, 1990), *susceptibility to emotional contagion* (Doherty, 1997), etc. are presented as individual difference variables. This suggests that some employees may perform better than others in using affect as information and that they may be screened for this ability.

preparedness is triggered. In addition, there is some question as to whether conscious mimicry is effective. For instance, Davis (1985) held that microsynchrony is an unconscious phenomenon and that the conscious mirroring of others is bound to appear false. LaFrance and Ickes (1981) found that too much conscious mimicry between interaction partners resulted in an evaluation of the encounter as strained, forced, and awkward. Thus, conscious mimicry does not only seem ineffective in generating an empathic response but also appears to carry negative consequences on interactional quality/satisfaction. On the other hand, what appears to be stressed in the emotional contagion literature is the result of unconscious mimicry and feedback; namely, the resultant emotional state and the bringing of that state into awareness. In this perspective, felt emotion involves an information function: it carries information about the other person's feelings.

Various shortcomings of the proposed model are apparent. Firstly, this model is in no way a complete or holistic portrayal of the service encounter or of its emotional nature. It does not cover all incidences and all aspects of emotion in the service encounter. Additional specifications can be made with respect to the provider and consumer emotion processes. For instance, the valence and level of arousal of the emotional expression and internal feeling state components could have been addressed in a more explicit manner. In addition, intensity and frequency considerations with respect to these components of emotion (e.g., Diener & Larsen, 1984; Diener et al., 1985) can emerge as important considerations because of the episodic nature of the service encounter. However, these remain unaddressed. Secondly, the model's focus is on emotion but emotion clearly does not underlie all of services marketing and management. Thirdly, the applicability of the emotional contagion aspect of the model rests more in the context of high-contact and emotionally-laden services such as those of the therapeutic variety or at least in the context of those which involve more than mere *exchange norms* (see Adelman et al., 1994; Goodwin & Gremler, 1996). Also, the model does not represent a pure process theory nor is it parsimonious. Some of its proposed components are clearly more content-oriented.

Fifthly, a potential problem with this model rests in its interdisciplinary and multilevel character. This inevitably creates a forum for dialectic tension which we struggled

with in putting this puzzle together as well as in attempting to specify a model with a dynamic character which is truly interactional and presents emotion as an interpersonal and intrapersonal phenomenon. Another problem is that many of the model's aspects cannot be ascertained empirically. For instance, the process by which Hochschild (1983a) suggests service providers regulate their emotions is currently untestable. Specifically, Kagan (1994) has suggested that it is currently impossible to distinguish, in measurement, the intensity of the experienced emotion from the process which regulates the emotion. Moreover, how does one experimentally assess the effects of feedback from the customer on the emotional labor of the provider? This and some other aspects of the model which are tied to the dynamic and temporally-sequenced nature of the service encounter clearly require more naturalistic (qualitative) approaches to research (see Levenson & Gottman, 1983).

Furthermore, the model does not specify which emotion will result in the consumer from the appraisal process component. To do so would require additional specification with respect to combinations of appraisal dimensions. Relatedly, the cognitive component of the model that is based on attribution theory or alternatively on some other combination of appraisal dimensions can predict at least the valence of an initial emotional state in the consumer (see Weiner, 1985a, 1986). However, the question remains as to what happens when emotional contagion results in one emotion while the cognitive appraisal component of the model suggests that another emotion is generated? This potential incongruity can for instance arise in situations where surface acting results in suppression of true feeling which still manages to leak out via nonverbal behavior (see Ekman, 1985; Frank & Ekman, 1997; Frank, Ekman, & Friesen, 1993). Contagion may unconsciously be based on the poorly dissimulated "true feeling" displayed by the actor but appraisal may be based on the more overt and normative displays which may be deemed inauthentic and of poor taste and delivery. This potential inconsistency can only be resolved via experimental research. One may for instance, attempt to manipulate the outcome for the client (positive or negative) by one channel (audio) and concurrently manipulate the emotion portrayed by the provider (positive or negative) through a different channel (video). Permutations of these manipulations may perhaps reveal how various forms of information are processed in the

service encounter and whether cognitive processing or contagion contribute more to the consumer's affective state. Additionally, the part of the model which involves cognitive appraisals is subject to some of the criticisms which surround appraisal theories in general; namely, the lack of process orientation, the lack of consensus on the type and number of appraisal criteria, and excessive cognitivism (Scherer, 1993; for additional shortcomings, see Parkinson, 1997).

Also, the model does not explicitly acknowledge the effects of gender (e.g., Brody, 1985; Friedman et al., 1980; Hall, 1984; Hall & Halberstadt, 1986; Haviland & Malatesta, 1981; Saarni, 1979, 1984) or individual differences in the regulation of various components of emotion (e.g., Cacioppo, Uchino, et al., 1992; Davis, 1983; Doherty, 1997; Friedman & Riggio, 1981; Katkin, 1985; Laird, 1984; Larsen & Diener, 1987; Larsen, Diener, & Cropanzano, 1987). Nor does the model explicitly acknowledge individual differences in the processes that lead to emotion on the part of the consumer and provider which include *expressive abilities* (Gross & John, 1995, 1997), *affective orientation* (awareness of and use of affective information) (see Booth-Butterfield & Booth-Butterfield, 1990), and *empathic accuracy* (see Levenson & Ruef, 1992). In addition, the model does not consider language variations. Bilinguals are known to behave in accordance with the culture of the language they are using in a given instance (Lambert & Moore, 1966; Matsumoto & Assar, 1992). In the context of Quebec, this may imply variations in display rules and in the judgment of facial expressions when a bilingual provider is addressing a client in English or French.

Another problem with the model is that it can be taken to imply that contagion results in more efficient service delivery in that this process carries the potential of building rapport. However, individuals who possess the ability to be infected by the feelings of others may also be impeded by this ability. Hatfield et al., (1994) state that:

> we pointed out that the very people who are most sensitive to other's moods are often also those most eager to improve social relations. What they may fail to recognize is that the same sensitivity that makes them good at perceiving the dynamics of a difficult situation sets limits on their ability to deal with that situation. Sensitive souls can spend only so much time with those that are depressed, angry, or anxious without getting swept up in the maelstrom themselves .... Sensitive people, susceptible to emotional contagion, are wonderful at understanding and dealing with others; but

> after a bit, they get tired .... Other, hardier individuals are more or less oblivious to the emotional climates in which they dwell .... Such people may not be aware of what is going on in an emotional situation, but they can stay in them and deal with them a lot longer. (pp. 193-195)

Clearly, having this ability and being exposed to a client who is highly aroused and angry is not a pleasant experience for the provider, and vice versa. Empathy thus seems to invite a paradox in the context of the service encounter: it appears highly beneficial for the service provider and consumer/client in that it may contribute to a smooth interaction and an "intuitive" understanding. However, it also appears as an ability which sometimes involves unpleasant consequences and which may potentially undermine the provider in the execution of the more technical aspects of the service. Finally, Hatfield et al. (1994) hold that emotional contagion is multiply determined. We have only addressed the mechanism which is posited to involve mimicry and subsequent feedback and is said to result in what is labeled *primitive emotional contagion* (Hatfield et al., 1994). Other mechanisms which result in emotional contagion may also be possible (see also Laird et al., 1994). In fact preparedness has been presented as an alternate and potential mechanism of contagion (see Lundquist & Dimberg, 1995). However, it has been modeled here as an emotion process that is distinct from primitive emotional contagion. The latter has been presented as a broader phenomenon that is non-specific to particular emotions (Hatfield et al., 1994) whereas the former appears limited to reactions to expressions of fear and anger (see Smith et al., 1996). In addition, the processes which underlie each mechanism are rooted in differing somatic traditions. Preparedness is clearly based on Darwinian tenets whereas primitive emotional contagion rejoins a Jamesian perspective on emotion.

CHAPTER 7

COGNITIVE EVALUATION OF PROVIDER DISPLAYS AND PERSON PERCEPTION

The model proposed above suggests that a variety of factors combine to generate affect in the consumer. However, a cognitive representation of the affective behavior of the service provider is also likely in the consumer. Impression formation based on dispositional inferences is an important outcome of the dynamics of interpersonal behavior (Asch, 1946; Wiggins & Trapnell, 1996) and represents a routine understanding of social events (Winter & Uleman, 1984). Facial expressions of emotion have been presented as spontaneous reflections of internal emotional states (Darwin, 1872; Ekman, 1994). However, recent evidence suggests that they also convey information from which an observer may infer cognition (Ellsworth, 1991; Scherer, 1992), social intent (Buck, 1984, 1988a), and personality (Myllyniemi, 1997). McHugo et al. (1991) state that: "[e]xpressive displays of emotion are information-laden ...; they provide dispositional and situational information ..." (p. 19). Knutson (1996) holds that: "[s]ince emotional expressions purportedly convey interpersonal information, one might extrapolate that they should have an especially potent impact on interpersonal trait inferences" (p. 166).

The importance of impression formation in the consumer of services is suggested implicitly by the dramaturgical and role-theory perspectives which have been used to describe interaction in the service encounter (e.g., Deighton, 1992). These perspectives are rooted in impression management (Goffman, 1959; Leary, 1994; Schlenker, 1980; Snyder, 1987). Impression management is not engaged in aimlessly or in a vacuum by the service provider. This process is goal-oriented and seeks to create or foster an "appropriate" impression in the consumer. That affective displays by an actor can be used as input in impression formation by the target of those displays is therefore explored below and a model is presented. The model presented earlier in Figure 9 and discussed in section 6.4 has been reconfigured to accommodate impression formation predictions made in the forthcoming discussion. The provider side of the model is essentially unchanged. It has however been simplified to simply include the four types of service provider displays and their generative

mechanism proposed in Hochschild (1983a). The model takes on a stimulus-response configuration and thus loses the dynamic characteristics of its predecessor discussed in section 6.4. The feedback loops have thus been omitted and no consumer emotion process is addressed. Attribution is once again proposed as an intervening process. Specifically, Graham and Brown (1988) suggest that attribution is in fact a mediator of evaluation. The cognitive content of this model with respect to the consumer somewhat rejoins many of the services evaluation frameworks discussed in the next chapter in that they are also mainly cognitive. However, it deviates from these conceptualizations in that its focus remains constrained to the expressive behaviors of the provider and their impact on consequent impression formation in the consumer. Despite the spontaneous and routine nature of impression formation in interpersonal interaction (Asch, 1946), the widely accepted evaluative frameworks proposed in services marketing do not address this process or its outcome. As we shall see in the next chapter, the services marketing literature has reduced evaluation to a few factors (e.g., expectancy disconfirmation) which do not (explicitly) include those addressed in this chapter or the previous. Together, Chapters Six and Seven suggest the ubiquity of emotional phenomena in social settings; and this, even in the case of the more cognitively-oriented model presented in this chapter.

7.1 Person Perception and Impression Formation

"People's outcomes in life are greatly affected by the impressions others form of them" (Leary et al., 1994, p. 664). Many models of person perception specify how individuals draw inferences about another person following interaction with that person (e.g., Heider, 1958; Jones & Davis, 1965; Jones & McGillis, 1967; Kelley, 1967; Kelley, 1971a). As a whole, the research that these theories/models have generated, addresses the impact of various aspects of social interaction on social perception. For instance, Jones and Davis (1965) suggested that inferences are drawn from observed acts through specific intentions to more general personality dispositions. Interaction with another requires that we efficiently organize information about that person (Newman, 1991). Personality traits or cross-situationally and temporally stable dispositions (Baron & Kenny, 1986) often serve as the concepts around which this information is organized (Andersen & Klatzky, 1987; Chaplin,

John, & Goldberg, 1988).

Recent experimental studies in psychology have emphasized the role of *social context* in the experience and expression of emotion (e.g., Buck, 1991a; Chovil, 1991; Fridlund, 1991b, 1992a) and have specified *action tendency* as a form of *social intent* (Jakobs, Fischer, & Manstead, 1997). This rejoins Darwin (1872) who argued that facial expressions of emotion not only communicate emotion but also the expresser's interpersonal intent (see Buck, 1984). Thus, expressions of emotion may serve social predictive functions as well. For instance, a smile may be taken as a signal of a desire to cooperate (Frank, 1988). More complex extrapolations may result in trait inferences being made based on this information (Knutson, 1996). Plutchik (1997) argues that there are two main reasons for considering emotion and personality as part of the same interpersonal domain: (a) the overlap in words used to describe personality and emotion and (b) the functional significance of traits and emotions.

The first impression of another "is from the start unified; it is the impression of the person" (Asch, 1946, p. 258). Impression formation involves inferential processes on the part of the perceiver that vary in complexity. Implicitly, the perceiver assumes that the target's behaviors reflect more basic qualities. (Anderson, 1981). Hamilton and Sherman (1996) hold that: "the information immediately available is used as a basis for making correspondent trait inferences and evaluative judgments about the person's more general dispositional characteristics" (p. 337). Accordingly, Wyer and Gordon (1984) proposed that when one is forming an impression of another person involved in an event, the cognitive representation of the information may partly consist of "trait descriptions of the person, or a general evaluation (e.g., 'nice guy' or a 'jerk')" (p. 113). They add that:

> [s]ome of these traits may be implied directly by the person's behavior and may be assigned to the person at the time this behavior is observed. Others, however, may be inferred indirectly, based on assumptions about what traits are typically interrelated .... It is conceivable, of course, that both types of representations - a representation of an observed event sequence and one of the person involved in the events - may be formed simultaneously and may coexist in memory ... the information obtained through direct observation of event sequences is subject to dual coding under conditions in which the observer wishes to form an impression of the actor. One code may be concrete and episodic in nature, whereas the other may be

abstract and semantically based, consisting of traits and general behaviors .... (p. 113)

In addition, the perceiver appears to expect consistency in the target person's traits and behaviors (Hirt, 1990; Lutsky et al., 1994; Rosenberg & Sedlak, 1972). For instance, Rosenberg and Sedlak (1972) have suggested that traits which are similar in favorableness are more likely to co-occur than traits that are different. An immediate integration of the information about another person is also implied and the organization of an impression appears to occur around the prominent themes which apparently make up the target's personality (Asch, 1946; Hamilton, 1981; Park, 1989). Moreover, the process of drawing trait inferences about a target person tends to become effortless and spontaneous, that is, without awareness and intention (Newman, 1991; Uleman, 1987, 1989; Winter & Uleman, 1984). In other words, people tend to spontaneously[88] encode behaviors in terms of trait meaning. This process has been presented as a routine understanding of social events and a ubiquitous or inevitable aspect of daily interactions with others (e.g., Winter & Uleman, 1984; Winter, Uleman, & Cunniff, 1985). In addition, this process appears to partly determine the nature of interactions (Newman & Uleman, 1989) and trait inferences appear to be stored in memory with the behavioral episodes which triggered them (Winter & Uleman, 1984). Kanouse and Hanson (1987) describe the standard impression formation paradigm:

> subjects are presented with a set of trait adjectives describing ... a hypothetical stimulus person (for example, 'intelligent, loyal, and quarrelsome'). Their task is to combine this information about isolated traits into an overall evaluation of the stimulus person. The major goal of researchers investigating impression formation has been to find a simple, parsimonious rule that adequately describes the relationship between the overall evaluation of a stimulus person and separate evaluations of his attributes. (p. 48)

7.2 The Interpersonal Circumplex

Leary (1957) proposed the Interpersonal Circumplex as a model of the interpersonal domain of personality (see also Freedman, Leary, Ossorio, & Coffey, 1951). The study of the interpersonal side of personality has largely confirmed the structure and substance of the

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[88] Spontaneous processes are distinguished from automatic ones (Bargh, 1989; Kunda, 1999; Newman, 1991; Schneider et al., 1984). The latter appear sensitive to changes in cognitive capacity and are related to processing goals (see Newman, 1991).

original model. A variety of interpersonal circles has emerged in the literature (see Kiesler, 1983; Plutchik & Conte, 1997; Strong et al., 1988; Wiggins, 1979, 1980, 1982; Wiggins, Trapnell, & Philipps, 1988). These models tend to show only slight variations from the one proposed in Leary (1957) (see Myllyniemi, 1997). An interpersonal circumplex appears in Figure 11. This model is presented and discussed in Wiggins et al. (1988). The circular form of the model resembles the affective circumplex proposed in Russell (1979, 1980). Circumplex models of personality and affect are discussed concurrently in Plutchik and Conte (1997). The orthogonal axes represent the principal component dimensions of *dominance-agency* and *nurturance-communion* (or *affiliation*). A 45 degree rotational variant of this circle results in two of the "big five" dimensions[89] of personality: *extraversion* and *agreeableness* (see Costa & McCrae, 1991). The other three dimensions (*neuroticism*, *conscientiousness*, and *openness*) tend to be less implicated in the interpersonal domain and are therefore omitted from this representation (Wiggins & Pincus, 1992).The pairs of capitalized letters which appear in Figure 11 were originally used in Freedman et al. (1951) to label sixteen interpersonal variables in alphabetical order: (A) dominant, (B) arrogant, (C) calculating, ..., (P) assured. Wiggins and Trobst (1997) argue that in recent work, these sixteenths have been combined into octants as they appear on the circle in Figure 11. Thus, for example (PA) represents the trait combination *assured-dominant* and spans over a 45° region of the circle which ranges from 67° to 112°. The descriptive trait words that have been positioned along the circle show variations in interpersonal traits. Wiggins and Trobst (1997) hold that interpersonal traits represent "individuals' characteristic patterns of social exchange that recur within and across interpersonal situations" (p. 59). They add that:

> [f]or example, arrogant-calculating behavior (BC) differs from assured-dominant behavior (PA) in the denial of love to other. Note that the first and last listed variables also differ by only one element. The difference between gregarious-extraverted behavior (NO) and assured-dominant behavior (PA) is that the latter denies status to other. To the extent that the hypothesized values assigned to these eight variables are in fact true, the empirical interrelations among measures of these variables will necessarily form a circumplex (Wiggins & Trapnell, 1996). (p. 59)

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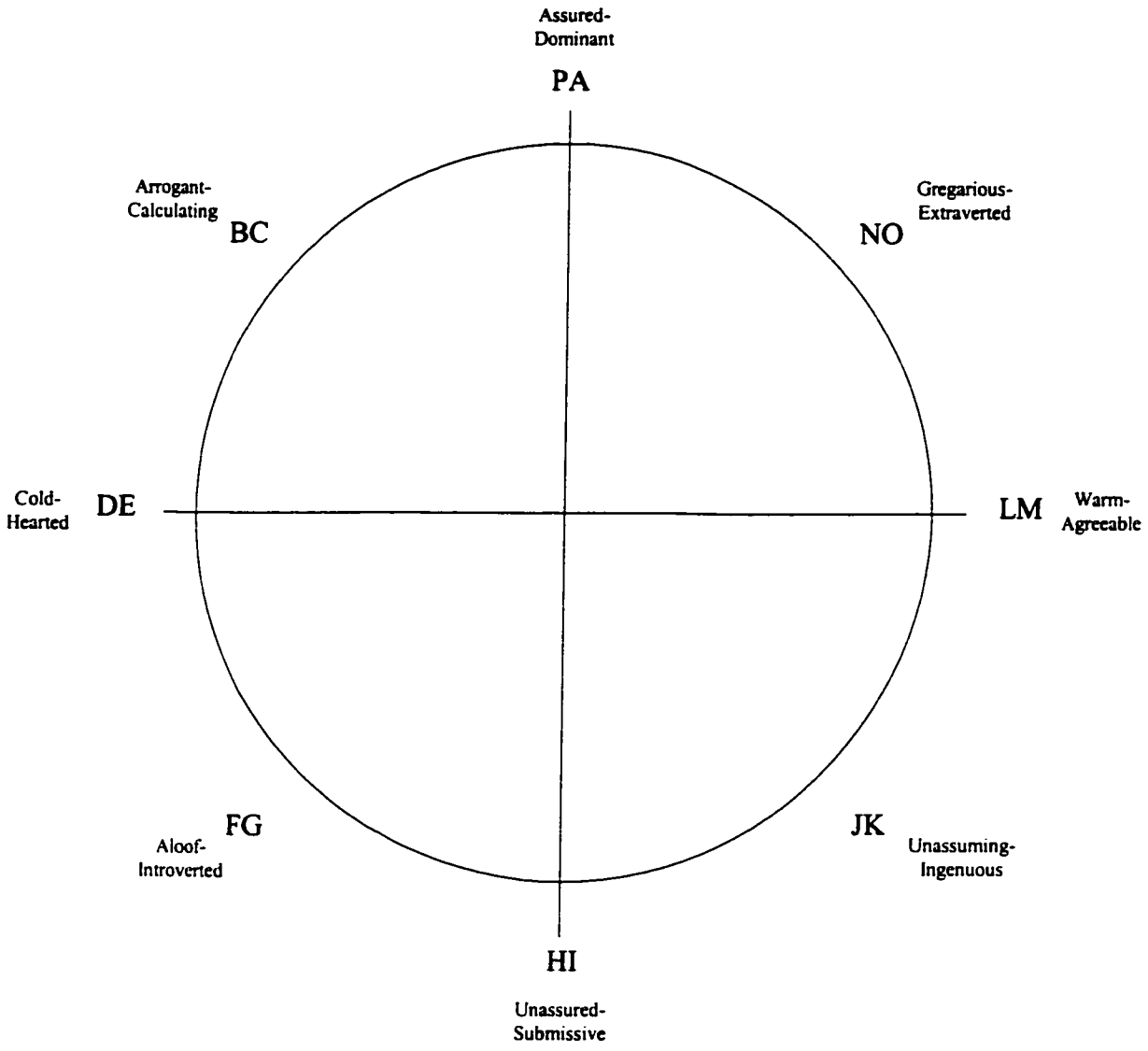
[89] In Costa and McCrae's (1991) model of personality, each of the big five dimensions represents a second-order factor and involves multiple facets which represent first-order factors.

Figure 11

The Interpersonal Circumplex



Source: Wiggins , Trapnell, and Philips (1988)

This circumplex model generally applies to relationships which involve the granting of *status* (agency) and *love* (communion). Its applicability thus seems to be limited to service encounters and relationships which involve communal rather than exchange norms such as services provided in the medical context or by divorce lawyers (see Adelman, Ahuvia, & Goodwin, 1994; Goodwin & Gremler, 1996). These are services which potentially involve the provision of social support and thus high levels of emotional labor. Accordingly, Wiggins and Trobst (1997) applied this model to social support situations. The universe of content of *social support* was quite broadly defined to include a fairly exhaustive list of forms of support received by individuals with cancer (see Trobst, Collins, & Embree, 1994). This appears to indicate that the general interpersonal framework is applicable not only to very intimate relationships such as marriage and close friendships but can also be generalized to relations exhibited in services which typically involve high levels of emotional labor.

At the cross-cultural level, Triandis (1995) has proposed that agentic and communal institutions within cultural groups are best characterized by the cultural variability dimension of individualism-collectivism. Within a specific culture, agentic and communal situations can be identified which are manifest in roles based on kinship, marriage, friendship, social organization (e.g., employee-employer), and vocation (e.g., service provider-customer) (see Moskowitz, 1994). Wiggins and Trobst (1997) argue that various role definitions may "facilitate or constrain the exchange of love and status" (p. 63). The interpersonal circumplex space representation is therefore fairly generalizable. They add that: "[i]n principle, there are many subuniverses of interpersonal content that focus on different constructs in different measurement contexts" (p. 62). The work of Hochschild (1983a) suggests not only that emotion is used as a strategic tool but that it typically involves emotional displays that foster friendly and affiliative-like behaviors and relations among service providers and customers (see also, Parkinson, 1991). For instance, Hochschild (1983a) lends a particular importance to the use of the smile. However, this work also relates observations of instances where displays which convey dominance were also useful such as in dealing with disruptive airline passengers.

Myllyniemi (1997) proposed an emotion-based interpretation of the interpersonal

circumplex. She argues that: "when the interpersonal circle is divided into the quadrants that are commonly called friendly-submission, friendly-dominance, hostile-submission, and hostile-dominance ... it is actually divided into its emotionally-laden areas" (p. 272). It is added that: "[t]he quadrants could as well be called trusting, nurturing, fearfulness, and aggression" (p. 272). In turn, this representation is taken to reflect four *emotional security orientations*. An orientation is defined functionally (see Fridja, 1986; Plutchik, 1980b). Moreover, the four orientations are presented as "energized and directed by underlying emotional orientation" and as "ways of relating to others" (p. 290). Trusting and nurturing represent two *attachment orientations* whereas fearfulness and aggression are called *defensive orientations*. For instance, the fearful orientation is seen as resulting in the functional consequence of avoidance of danger. Thus, "as an emotional event, this orientation is essentially a process for freeing oneself of fear and insecurity, it can also be perceived as the seeking of a pleasurable feeling state to replace fear" (Myllyniemi, 1997, p. 277).More generally, an orientation represents:

> a process by which the organism first recognizes a discrepancy between its present state relation to the environment or ongoing events and a more desirable relation. This recognition will activate certain system-specific types of action. If these bring about the desirable relation the process will be terminated. If not the discrepancy is fed back into the system and action continues. (Myllyniemi, 1997, p. 274)

Myllyniemi (1997) carried out two studies to test whether her sixteen category conceptualization would result in recovery of the circumplex shape with actual data. The first study was based on similarity ratings of interpersonal term meanings. The second study involved judgments of photographs of posed facial expressions reflecting the language labels used in the previous study. In both cases, the results pointed to the recovery of the four proposed emotional areas of the interpersonal circumplex and of two underlying dimensions: (1) *defiance (hostility) - affiliation* and (2) *dominance - submission*. Moreover, the terms and photographs appeared ordered in a circular fashion.

Knutson (1996) used photographs of expressions of five basic emotions (Ekman & Frisen, 1976) to measure the impact of facial expressions on interpersonal inference. The interpersonal dimension of *affiliation* was deemed closely associated to configurations of the

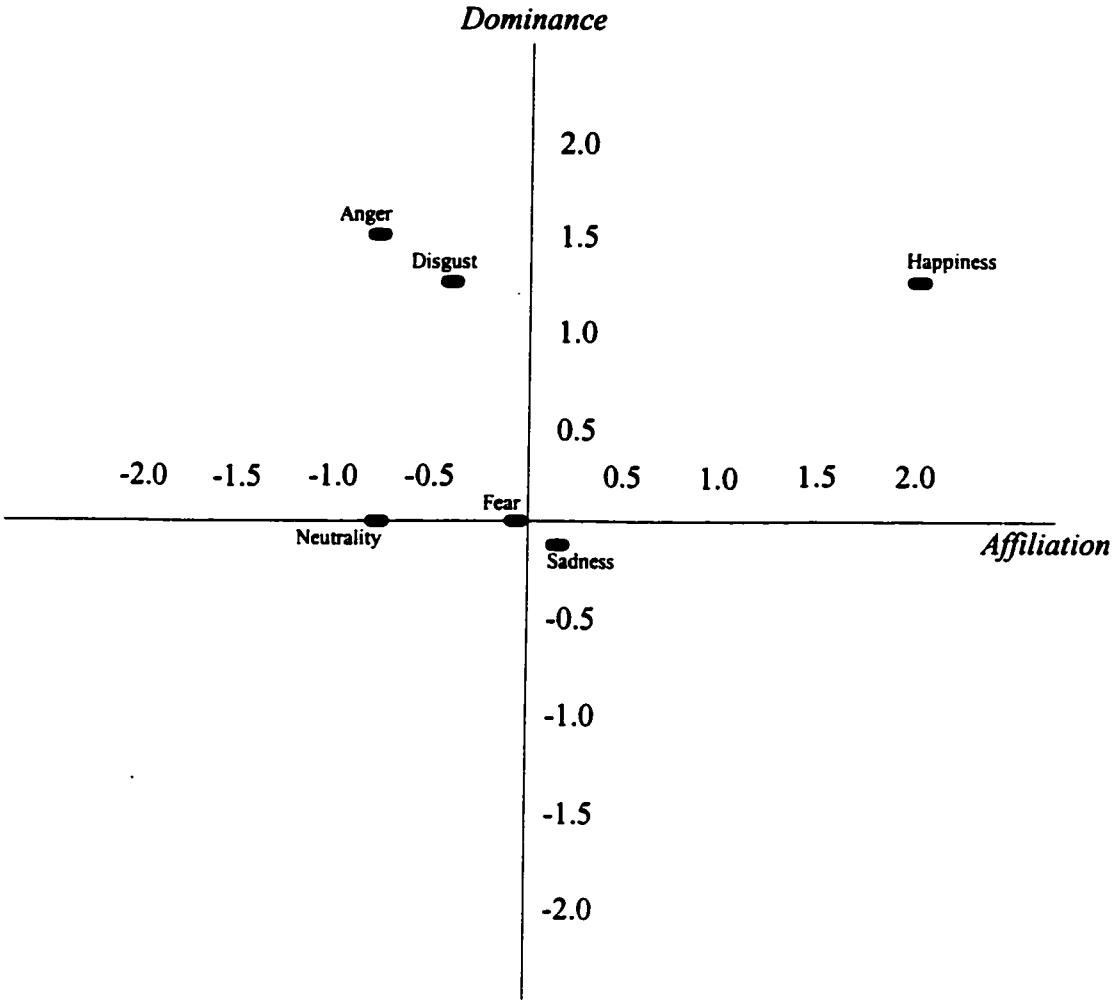
mouth. Happy expressions were hypothesized to lead to inferences of high-affiliation whereas angry, disgusted, sad, and fearful expressions were predicted to result in low-affiliation inferences of the target. On the other hand, the *dominance* dimension was presumed to relate to configurations of the midline brow. Disgust and anger expressions were hypothesized to result in high-dominance inferences whereas fearful and sad faces were expected to yield low-dominance ratings. Each slide was rated on thirty-two trait adjectives selected from the Interpersonal Adjective Scale, Revised (IAS-R) (see Wiggins et al., 1988). The target expressions in the photographs were found to influence affiliation and dominance ratings as predicted. Figure 12 summarizes Knutson's (1996) results. The interpersonal circumplex thus provides a conceptual framework with which social judgments/perceptions of service providers on a variety of interpersonal factors can be related and meaningfully organized. It is obvious that some interpersonal traits, if attributed to the provider, carry negative connotations. For instance, a medical doctor who expresses anger or disgust may thus be viewed as high on dominance and low on affiliation. This seems contrary to the empathy, care, and concern that one would expect from an able service provider in this occupation.

7.3 Social Perception and Attribution

The link between behavior and dispositional/trait inferences rests in the attribution process (Heider, 1958; Jones & Davis, 1965; Jones & McGillis, 1978; Kelley, 1967). Understanding why a behavior occurred is an important aspect of impression formation (Trope, 1989). Hence, the process of causal attribution has been posited to underlie person perception (Hamilton & Sherman, 1996). Attribution is generally described as "the process by which individuals form causal interpretations of the events around them" (Kanouse & Hanson, 1987, p. 47). In general, attribution research is concerned with (a) how people arrive at causal inferences, (b) what form of causal inferences they make, and (c) the consequences of these inferences (Folkes, 1988). Attribution theory represents a cognitive orientation in social psychology (Taylor, 1998). It is important to note that this process is due to inferences about causality which, in turn, constitute only one type of cognition. However, the importance of causal inference cannot be underestimated. Taylor (1998) argues that causal

Figure 12

Expressed Emotion and the Interpersonal Space



Source: Knutson (1996)

attribution processes were deemed important in that they were seen as "a basic and focal type of inference on which many others are predicated" (p. 71). These include, intentionality, the likelihood that a behavior will be repeated, and whether a behavior suggests underlying dispositions (Jones & Davis, 1965).

In social judgment, the attribution process has been described as a series of inferences that link behavior to trait or dispositional properties (Heider, 1958). Heider's (1944, 1958) *theory of naive psychology* spearheaded the area of attribution psychology and has given rise to much research. Heider (1958) attached importance to the study of common sense psychology. He held that people aim to predict and control the world around them. He argued that to do so, "we impute structure to social stimuli and to the environment, draw inferences from those structures, and behave in accordance with them" (Taylor, 1998, pp. 70-71). Hence, Heider (1958) stressed that awareness of the causal structure of human behavior was essential for prediction and control purposes. Heider (1958) suggested that the analysis of behavior based on perceived dispositions results in "invariances that make possible a more or less stable, predictable, and controllable world" (p. 80). Similarly, Graham and Brown (1988) state that: "[t]he use of causal information to make judgments about others is a fundamental feature of social life" (p. 873). Heider's observations were extended by other theorists such as Jones and Davis (1965), Kelley (1967), as well as Weiner (1985a, 1986; see also Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972).

The process of causal attribution involves a multidimensional structure. According to Weiner (1986), three clear causal attribution dimensions have emerged: (a) *internal-external* determinants of behavior (Heider, 1958), (b) *stable-unstable* causes (Weiner et al., 1971), and (c) *controllability* (Rosenbaum, 1972; Weiner, 1979). Heider (1958) stressed the importance of the internal-external dimension: "[i]n common-sense psychology (as in scientific psychology) the result of an action is felt to depend on two sets of conditions, namely factors within the person and factors within the environment" (p. 82). Bassili and Racine (1990) have also suggested that the fundamental notion in attribution theory rests on "the distinction between causal forces that are internal versus external to an actor" (p. 881). Rotter (1966) extended this thinking by proposing the *locus of causality* which allows one

to ascertain where causes are perceived on a internal-external dimension. The second dimension refers as to whether causes of behavior are invariant (stable) or whether they fluctuate (unstable) (Weiner, 1986). This distinction is reminiscent of that which has been made by personality psychologists between traits (i.e., dispositions implying that actions will be manifested in a repeated manner over time) and states (i.e., behaviors that are performed occasionally and as a reaction to environmental circumstances). Finally, the third dimension or controllability is associated to volition or intentionality. For instance, stable and controllable causes of success and failure include long-term effort and laziness whereas stable and uncontrollable causes include aptitude (Weiner, 1986).

Kelley and Michela (1980) have suggested that much of the research on attribution can be classified into two broad categories: (a) research looking into how information is used in order to make a particular kind of attribution (e.g., dispositional vs. situational) (e.g., Jones & Davis, 1965) and (b) research investigating the subsequent affective and behavioral effects of making a particular type of attribution (e.g., Weiner, 1985a, 1986). Typical studies on attribution involve a behavioral event that is presented to a subject whose task is to attribute the cause of the behavior(s) either to the situation or to the actor. The subject is also provided with additional context information that may be used in making the attribution. This information is usually a set of statements which are designed to guide the process in that they may imply actor causation or situation causation (Hamilton, Grubb, Acorn, Trolier, & Carpenter, 1990). Research on causal attribution has demonstrated that individuals ask *why* questions even when they are not prompted to do so and this indicates that "causal questions are prominent in thought" (Wong & Weiner, 1981, p. 661). In other words, attributions are assumed to occur spontaneously (Bassili & Smith, 1986).

Many theories of attribution have been suggested (see Fiske & Taylor, 1984). Jones and Davis (1965) proposed the *correspondent inference theory*. This theory is concerned with the attributions a social perceiver makes about other people's behavior. It therefore appears most appropriate to dyadic interaction situations. In other words, it applies to instances where an observer is engaged in person perception. As in Heider (1958), this perspective suggests that attribution processes "are motivated by a desire for cognitive

mastery of the social environment" (Bassili & Smith, 1986, p. 239). Thus, correspondent inferences are presumed to be drawn about other person's behavior. Jones and Goethals (1987) hold that in the original form of the theory, "the basic task of the attributor is to allocate the determinants of observed action to the person or the environment" (p. 27). Specifically, the attributor determines whether an act reflects a characteristic of the actor and therefore hints at some disposition(s) or whether it reflects "the evocative power of the environment" (p. 27). Drawing heavily on Heider (1958), Jones and Davis (1965) argued that social situations provide some simple cues and processes which allow an observer to impute structure on social information in a causal fashion and hence to form causal attributions. According to Jones and Davis (1965), the notion of intentionality underlies the causal inference process. Making inferences regarding intentions presumably based on dispositions requires an *analysis of uncommon effects* or a comparison of the consequences of the action taken by the individual with those of actions which were not engaged in. This comparison of consequences is focal in the theory and allows one to infer the vigor of the underlying intention. Basically, Jones and Davis (1965) argued that the perceiver asks the question: "What is this action producing that other actions would not have produced?" (Taylor, 1998, p. 71). If the chosen action produces distinctive outcomes, dispositions which reflect the outcome are assumed to be the underlying cause of the action (Fiske & Taylor, 1984). However, this process can result in ambiguous conclusions about the dispositions of the target or the actor. Therefore, other cues are also used in order to resolve ambiguities. These include: *choice*, *social desirability*, *social role*, and *prior expectations*. *Choice* refers to whether the individual is socially constrained to behave in a particular manner or whether this behavior results from free choice. Behaviors low on *social desirability* allow one to infer more confidently that an underlying disposition is responsible for the behavior. On the other hand, they held that socially desirable behavior is attributable to situational factors because it guided by social norms. Whether a behavior is or is not part of a *social role* also cues the perceiver as to whether a disposition is guiding the behavior. Finally, *prior expectations* are likely to develop when individuals have had prior experiences with the same actor (see Jones, Davis, & Gergen, 1961; Jones & McGillis, 1976). To summarize Jones and Davis' (1965)

theory, Fiske and Taylor (1984) state that:

> [a]ssuming an actor has both the ability to complete an action and knowledge of its consequences, his or her action is most likely to be perceived as intentional if any of the following is true: the action has produced an outcome that is distinctive, it is judged to have occurred from choice, it is either socially undesirable or out of role, or it violates prior expectations. The specific intention can be inferred from the noncommon effect the action produced that other possible actions would not have produced. However, the perceiver's attributions are not always unbiased, and two factors that can enter into the attributional process are the hedonic relevance of the action for the perceiver and the judgment that the action was intended to benefit or harm the perceiver (personalism). (p. 29)

Various biases have been suggested as part of the attribution process (see Fiske & Taylor, 1984; Gilbert & Malone, 1995; Jones, 1990; Kelley, 1987; Kunda, 1999). Kelley (1987) refers to these various biases as "the more and the less rational aspects of attribution" (p. 22). Biases interfere with the accurate assessment of another's motives (Fiske & Taylor, 1984) and thus have a tendency to result in a skewed explanation. According to Jones and Davis (1965), two perceiver biases appear in the correspondent inference process. *Hedonic relevance* refers to perceptions of whether an actor's behavior promotes or obstructs the perceiver's goals and interests. Perceptions of correspondence typically increase with hedonic relevance. *Personalism* rests in the perception that the actor intended to harm or benefit the perceiver. Other processes have been reported to have an effect on attribution. Dispositional attributions seem spontaneous or automatic (e.g., Bassili, 1989; Uleman, 1989; Uleman, Newman, & Winter, 1987). However, Kelley's (1971b) *discounting principle* suggests that people should make "less extreme attributions to the dispositional qualities of an actor the more there are situational pressures also present that could have compelled the observed behavior" (Kulik, Sledge, & Mahler, 1986, p. 587). On the other hand, *fundamental attribution error* is a well documented occurrence characterized by a tendency in people to overattribute other people's behavior to internal dispositions (Jones, 1979; Ross, 1977). The explanation for this tendency appears in Heider (1958) who suggested that the salience and intensity of behavior attracts attention to the actor rather than the situation. Alternatively, Gilbert and Krull (1988) have argued that this error results from a failure in a correction process which should occur after the initial attribution is made. Moreover, Gilbert, Pelham,

and Krull (1988) have demonstrated that this error is more likely to occur when subjects are 'cognitively busy' than when they process information in a leisurely fashion.

Wyer and Gordon (1984) suggest that when people are asked to explain the behavior of a particular person, the information they retrieve from memory "may consist of generalizations concerning why people typically engage in certain types of behaviors in certain types of situations" (p. 91). In other words, they propose that, quite often, simple rules of thumb are invoked in order for people to understand their social environment and to make inferences about it. They add that:

> [t]o this extent, implicational molecules [or rules of thumb] may govern many attribution phenomena. The possible existence of three such molecules, reflecting the general notions that people do things (a) to obtain a desired outcome, (b) because they are forced to do them by someone else, and (c) because they intrinsically like to do them ... much attribution theory and research ... can be viewed as concerned with the conditions that determine which one of these molecules is invoked in understanding a person's behavior in a given situation, and therefore which type of explanation is generated ... (p. 91)

A variety of other rules of thumb or *implicational molecules* are discussed in Kelley, (1967, 1971a). One general rule may be that behavior generalizes over exemplars of a given class of persons, objects, or situations. In this case, behavior is unlikely to be perceived as due to a characteristic of a particular person but rather attributed to the members of a particular class of people. Implicational molecules have also been represented in terms of heuristics which are not content specific (e.g., Nisbett & Ross, 1980). Regan and Totten (1975) have suggested that in an interaction between two people, person A is more likely to explain the occurring events in terms of the characteristics of person B, and vice versa. Nevertheless, Fiske, Taylor, Etcoff, and Laufer (1979) have found that there is little correlation between the amount of information remembered about the other person and the attributions made to the other person. Accordingly, Wyer and Gordon (1984) state that: "[i]t therefore seems equally reasonable to suppose that the judge's perspective affects the general rule of thumb (molecule) that is activated at the time of judgment, and that the implications of this molecule, rather than the details of the information itself, are used to generate explanations" (p. 92).

7.4 Burgoon' s Expectancy Violations Theory

The ubiquitous nature of expectations has been discussed by many authors. For instance, Jones (1986) states that: "[w]e rarely if ever confront others without some expectations about how they should behave" (p. 67). Expectations underlie a variety of constructs in the social sciences which include scenarios, scripts, schemata, behavioral routines, and norms (Backman, 1985; Darley & Fazio, 1980; Fischer, 1991; Hochschild, 1983a; Jones, 1986; Planalp, 1985; Schank & Abelson, 1977; Snyder, 1984; Taylor & Crocker, 1981). Expectations are cognitive structures that are related to social norms (Wilson & Klaaren, 1992). Interpersonal interaction is a domain in which expectations are deemed pivotal (Andersen, 1985; Burgoon & LePoire, 1993; Capella & Greene, 1982). Interactional expectancies can involve a variety of target characteristics which include trait-like attributes, state-like or situational attributes, and verbal and nonverbal communication behaviors (Burgoon, 1978, 1983, 1993; Burgoon & Hale, 1988; Burgoon & LePoire, 1993; Burgoon & Walther, 1990). Communication expectancies are presented as a function of target characteristics, context features, and relationship characteristics (Burgoon & LePoire, 1993).

Expectations aid a person in determining whether or not it is appropriate to display a particular emotion (Burgoon, 1993) by guiding the choice of specific display rules in situations (Andersen & Guerrero, 1998). Burgoon (1993) states that expectancies frame social situations and "define and shape interpersonal interaction" (p. 32). Moreover, expectancies play a role in predicting dyadic interaction patterns in general and the communication of emotion in interaction in particular (Burgoon, 1983, 1993; Burgoon & Hale, 1988). The role of expectations as norms emerges as an important consideration in the service encounter. Although the delivery of many services requires the expression of positive emotion some occupations such as those of bill collectors (Hochschild, 1983a) and those which involve police services and death telling (e.g., Pogrebin & Poole, 1995; Stenross & Kleinman, 1989) clearly require the strategic use of negative emotional displays.

Burgoon's (1983, 1992, 1993; Burgoon & Hale, 1988; Burgoon & LePoire, 1993; Burgoon, Stern, & Dillman, 1995) *expectancy violations theory* is a communication theory which places communication expectancies and expectancy disconfirmation/violation at the

forefront of interpersonal interaction. Quite similarly to Weiner (1985a, 1986), Burgoon (1993) holds that expectancy violations elicit emotions and argues that when expectancies are violated, individuals focus attention on the violation to establish whether it constitutes a positive or negative violation (see also Buller & Burgoon, 1986; Burgoon & Hale, 1988; Burgoon, Newton, Walther, & Baesler, 1989). However, the expectancy violation process is much specified in Burgoon's work than in Weiner's. The valencing process proposed by Burgoon involves (a) an interpretation of the partner as positive or negative given the behavior and (b) an assessment of the behavior as rewarding or non-rewarding. These assessments are largely made with respect to various social norms which include conversational norms. Personal preference is also involved in assessing a behavior as rewarding or non-rewarding (Burgoon & Walther, 1990). These judgments subsequently impact on whether or not the expectancy violation is deemed positive of negative. Burgoon (1993) states that:

> [p]ositive violations, in which the enacted behavior is more positively valenced than the expected, are theorized to produce more positive interaction patterns and outcomes than conformity to expectancies; negative violations, in which the enacted behavior is more negatively valenced than the expected behavior, are theorized to be detrimental, relative to expectancy disconfirmation. (p. 40)

7.5 A Model of Consumer Impression Formation in the Service Encounter

The discussion in the sections above suggests that in the service encounter, the affective information encoded in the expressive behavior of the provider can serve the consumer to draw inferences with respect to the interpersonal dispositions of the provider. This is suggested by studies which consider the impact of affective displays on inferences of interpersonal dispositions (e.g., Knutson, 1996; Myllyniemi, 1997) and by our more general discussion of impression formation and attribution. Attribution provides the process by which causal inferences are made (Fiske & Taylor, 1984). In this and the previous chapter attribution is thus posited to play a dual role. Not only is it involved in an emotion generation process from a cognitive perspective (Weiner, 1986) (see Section 6.4) but also in another process which results in dispositional or situational attributions being made with respect to the affective behavior of the provider. The model which addresses this process appears in

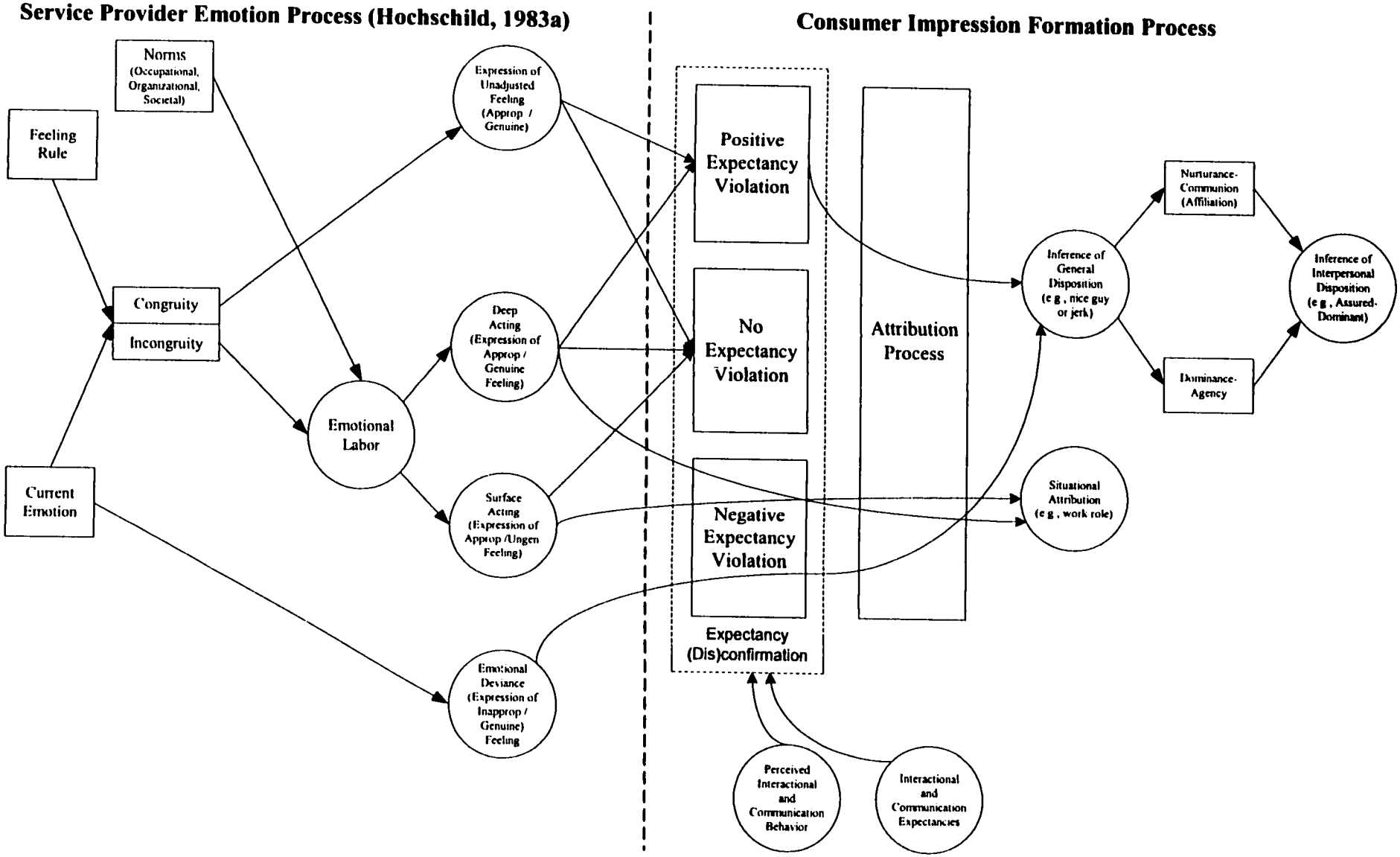
Figure 13.

In most services, the expression of positive affect is normative or expected whereas in others (e.g., bill collectors), it is the expression of negative emotion that is deemed appropriate (Hochschild, 1983a). Underlying each category of displays in Figures 9 and 13 is the notion of *appropriateness*. These categories were generated based on Hochschild's (1983a) account who addresses appropriateness generally with respect to valence and context (occupation and situational frame). Hence, each category generally emerges as normative or non-normative from the provider's perspective. However, variations in what is deemed appropriate may emerge on the part of the consumer. This may for instance be due to cultural differences between a provider and consumer (for a discussion of how culture affects emotion, see Markus & Kitayama, 1991). A judgment of the appropriateness of a service provider's emotional displays can be conceptualized as an expectancy disconfirmation process over a variety of interactional and communication behaviors which include emotional displays, their valence, their authenticity, etc. Expectations thus emerge here as norms (Burgoon, 1993; Wilson & Klaaren, 1992) against which expressive behavior is compared.

Displays Category 1 involves appropriate and unaltered feeling. It is likely to result in no expectancy disconfirmation or perhaps a positive disconfirmation. In the event of the latter, an attribution is engaged in which is likely to result in a dispositional inference. When no expectancy violation occurs, it is presumed as in Weiner (1986) that no increase in cognitive complexity will occur and that therefore an attribution process will not be triggered. Displays Category 2 emerges after deep acting. Genuineness or authenticity is a dimension of variation among the categories of displays. Hochschild (1983a) discusses authenticity at some length. She clearly suggests that many companies require that their employees engage in deep acting. This is said to increase the likelihood that a display will reflect an internal feeling state and thus appear authentic. If properly executed, no expectancy disconfirmation is posited to ensue in the proposed model. If done very well (above what is expected) or poorly (below what is expected), expectancy disconfirmation is likely to ensue.

Figure 13

A Model of Service Provider Expressive Behaviors and Consumer Impression Formation



A positive expectancy violation is likely to result in a dispositional inference (e.g., 'nice guy'). Conversely, a negative expectancy violation is likely to result in an situational attribution (e.g., bad day, etc.). Displays Category 3 stems from surface acting. This category of displays clearly carries the potential that it may be perceived as inauthentic via leakage of true feeling (see Ekman, 1985). It will consequently result in a negative expectancy violation which, in turn, is posited to lead to an situational attribution (e.g., 'He's having a hectic day;' 'She's very busy;' etc.). Displays Category 4 is determined by emotional deviance. Hence, it is very likely to result in a negative expectancy violation in the customer which, in turn, will result in a negative dispositional inference (e.g., 'jerk,' 'maniac,' etc.).

Weiner (1985a, 1986) suggested that an unexpected event will trigger an attribution process. The attribution process is viewed here much as it is described in Jones and Davis (1965; see also Jones & Goethals, 1987). Thus an *analysis of uncommon effects* suggests the intentionality of the provider's actions. Inferences are further specified by additional cues used to resolve ambiguities: *choice*, *social desirability*, *social role*, and *prior expectations*. Kelley's (1971b) *discounting principle* also appears applicable to judgments of service provider behaviors. In general, it is expected that less extreme dispositional attributions will be made when situational (e.g., work role) explanations can account for the behavior of an actor. Conversely, if the provider deviates from his role and behaves very unexpectedly (e.g., displays intense unprovoked anger), then a dispositional attribution is likely to ensue. Moreover, the model acknowledges that attribution is a process of varying cognitive complexity (Weiner, 1986). Impression formation on the part of the consumer may thus involve more complex extrapolations than general dispositions (e.g., 'nice guy' or 'jerk'). Emotional displays may therefore result in trait inferences (Knutson, 1996). This is depicted in the model by specifying that the process can result in interpersonal trait dispositions being made based on the dimensions of affiliation and dominance (see Wiggins et al., 1988). Thus, a service provider may not only appear as a 'nice guy' but also as for instance *gregarious-extraverted* or *warm-agreeable*. On the other hand, the 'jerk' may for instance be viewed as *assured-dominant* or *arrogant-calculating*.

Although the model is configured in terms of interpersonal trait inferences, the

proposed impression formation process appears valid for generating trait inferences based on *emotional expressivity* (King & Emmons, 1990; Kring et al., 1994; Gross & John, 1995, 1997). Models of Gross and John's (1997) conceptualization of expressivity and of the underlying emotion-generative process appear in Figures 10a and 10b. Like interpersonal traits (e.g., agreeableness), emotional expressivity represents a dispositional trait. This variable appears related to emotional contagion (see previous chapter). In light of Gross and John's (1995, 1997) three-dimensional conceptualization (positive expressivity, negative expressivity, and impulse strength), it seems warranted to posit that these facets can be reflected in impressions formed of another. In fact, Kring et al. (1994) suggest that their measure of expressivity can be altered to assess expressivity in others rather than self. Furthermore, the positive and negative facets of Gross and John's (1995, 1997) conceptual and operational definitions appear to overlap the content of some of the facets of the big-five dimensions of personality especially with respect to extraversion (see Costa & McRae, 1991). It therefore seems that emotional expressivity facets may represent complex rather than general trait inferences.

CHAPTER 8

SERVICE EVALUATION FACTORS

> mankind make far more determination through hatred, or love, or desire, or anger, or grief, or joy, or hope, or fear, or error, or some other affection of mind, than from regard to truth, or any settled maxim, or principle of right, or judicial form, or adherence to the laws.
>
> - Cicero (cited in Baird, 1965, p. 116)

Unlike manufactured products where tangible aspects by which they may be evaluated can be engineered and attributed to the production process, services involve no direct guidelines for assessment (Garvin, 1983; Grönroos, 1990). Zeithaml and Bitner (1996) state that: "[c]onsumers have a more difficult time evaluating and choosing services than goods, partly because services are intangible and nonstandardized and partly because consumption is so closely intertwined with production" (p. 56). The literature on service evaluation involves such constructs as satisfaction, service quality, and behavioral intentions. Behavioral intentions are typically presented as a consequence of some sequence based on satisfaction and quality components (Oliver, 1993). Level of felt satisfaction with a service has been presented as a construct with cognitive and affective determinants (Oliver, 1996; Rust & Oliver, 1994). However, it is typically conceptualized along the expectancy disconfirmation paradigm which is in essence cognitive (see Rust & Oliver, 1994) but often appears operationalized in a very simplistic manner (e.g., Cronin & Taylor, 1992). The cognitive basis of expectancy disconfirmation lies in the mental calculus that is presumed to be involved in these judgments. In fact, recent treatments of satisfaction which suggest its affective basis (e.g., Oliver, 1996; Westbrook, 1987; Westbrook & Oliver, 1991) reflect the treatment of affect in consumer behavior which has typically involved attempts to map or blend affect onto cognitive frameworks (Cohen & Areni, 1991). On the other hand, perceived service quality is clearly presented as a purely cognitive construct. It is typically conceptualized and often operationalized along the expectancy disconfirmation paradigm (e.g., Parasuranam et al., 1988). The following chapter proposes an overview of service evaluation factors. It concludes with an attempt at sorting out an often confusing literature and at conceptually relating *emotion* to these factors.

8.1 Expectations and Service Evaluations

Consumer expectations underlie many proposed models of service quality and satisfaction (Bitner & Hubbert, 1994; Boulding et al., 1993; Iacobucci, Ostrom, Braig, & Bezjian-Avery, 1996). The popular *gap model* of service quality (Parasuranam et al., 1985) and the expectancy disconfirmation paradigm in the satisfaction literature (e.g., Oliver, 1977, 1980; Tse & Wilton, 1988) both propose that evaluations result from a comparison of actual perceptions of a service to what was expected. The expectancy disconfirmation paradigm lies at heart of a variety of other more or less distinct models (see Boulding et al., 1993; Bolton & Drew, 1991a, b; Cadotte, Woodruff, & Jenkins, 1987; Cronin & Taylor, 1992; Churchill & Surprenant, 1982; Fornell, 1992; Grönroos, 1982, 1990; Iacobucci et al., 1996; Rust, Zahorik, & Keiningham, 1995; Price, Arnould, & Tierney, 1995).

Expectations are cognitive in nature (van Raaij, 1991). Customer expectations represent pre-trial beliefs about a service (Olson & Dover, 1979) and "serve as standards with which subsequent experiences are compared, resulting in evaluations of satisfaction or quality" (Zeithaml, Berry, & Parasuranam, 1991, p. 3). Boulding et al. (1993) state that "consumers update their expectations whenever they receive relevant information about the service" (p. 8). Customers have many sources of information that engender expectations about future service encounters. These include word of mouth, expert opinion, prior exposure to the service in question and to competing services, publicity, and company communications (Boulding et al., 1993; Zeithaml et al., 1991). The role of company and industry communications in building (often unrealistic) consumer expectations is stressed in Hochschild (1983a).

Two different types of expectations have emerged in the services literature and represent two main standards of expectations. One reflects a *desired* state whereas the other an *ideal* state (Oliver, 1993a). The two differing standards have served to highlight the difference between the expectancy disconfirmation paradigm which underlies service quality and that which is posited to underlie satisfaction. Specifically, Boulding et al. (1993) state that:

> [o]ne standard represents the expectation as a prediction of future events .... This is the standard typically used in the satisfaction literature. The other standard is a *normative* expectation of future events ..., operationalized as either desired or ideal expectations. This is the standard typically used in the service quality literature .... Though these literatures use different expectation standards, expectations and perceptions in both literatures are usually linked via the disconfirmation of expectations paradigm ... (p. 8)

Boulding et al. (1993) have further delineated the two standards by proposing that the former are "expectations about what *will* happen in their next service encounter with a firm" and the latter are "expectations about what *should* happen in their next service encounter, that is, the service customers feel they appropriately deserve" (p. 9). They add that:

> [w]hat customers think *should* happen may change as a result of what they have been told to expect by the service provider, as well as what the consumer views as reasonable and feasible on the basis of being told of a competitor's service or experiencing the firm's or the competitors service. In contrast, the consumer's *ideal* expectation - what a consumer wants in an ideal sense - may be unrelated to what is reasonable / feasible and / or what the service provider tells the customer to expect. Moreover, because *ideal* expectations represent enduring wants and needs that remain unaffected by the full range of marketing and competitive factors postulated to affect the *should* expectations, we believe *ideal* expectations are much more stable over time than consumer expectations of what should occur. (p. 9)

8.2 Perceived Service Quality

A lack of isomorphism between product and service quality determinants urged researchers to identify the distinct characteristics of services and base the notion of service quality on these factors (Oliver, 1993a). Perceived service quality has been defined as "a global judgment, or attitude, relating to the superiority of the service" (Parasuranam et al., 1988). This definition suggests that perceived service quality is analogous to an individual's general attitude toward the firm. This perspective appears rather consensual throughout the relevant literature (see Bitner, 1990; Bitner & Hubbert, 1994; Cronin & Taylor, 1992; Parasuranam et al., 1988, 1994a; Taylor, 1993; Zeithaml, 1988). However, Bitner and Hubbert (1994) suggest that this definition is that of *overall service quality* which should be distinguished from *encounter quality*. In most services, quality develops during service delivery and involves customer contact with the service provider (Bitner, 1990; Chase & Tansik, 1983). Accordingly, Zeithaml, Berry, and Parasuranam (1988) state that:

> [q]uality occurs during service delivery, usually in an interaction between the customer and contact personnel of the service firm. For this reason, service quality is highly dependent on the performance of employees, an organizational resource that can not be controlled to the degree that components of tangible goods can be engineered. (p. 35)

Expectancy disconfirmation models of service quality have stressed the subjective nature of service quality and have generally presented service quality perceptions as a function of the difference between (a) consumers' prior expectations of what should happen during the service encounter and (b) the actual service that was provided (see Grönroos, 1982, 1990; Zeithaml & Bitner, 1996) (see Figure 14). In other words, perceived service quality is a function of the extent and direction of the gap between expected service and perceived service across a number of specified dimensions (Parasuranam et al., 1985). Parasuranam et al. (1994b) contend that service quality should theoretically be specified in the following manner: *SQ = Perceived - Expected.*

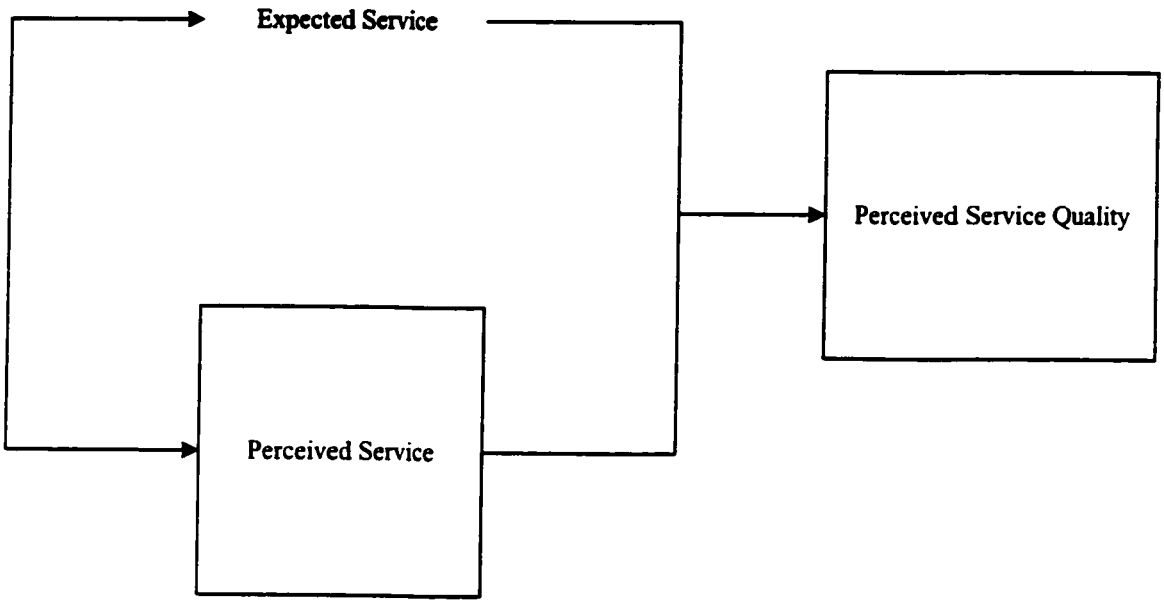
Grönroos (1982, 1990) has also made use of expectancy disconfirmation in his model of *total service quality.* He states that "[g]ood perceived quality is obtained when the experienced quality meets the expectations of the customer, that is the expected quality" (p. 41). Moreover, he adds that if "the expectations are unrealistic, the total perceived quality will be low, even if the experienced quality measured in some objective way is good" (p. 41). In general, this paradigm holds that the higher the expectation in relation to actual performance, the greater the degree of disconfirmation and the lower the level of perceived service quality. Because service quality has been likened to attitude, a variety of competing models have been proposed which are not based on expectancy disconfirmation but rather on attribute importance (see Taylor, 1995).

8.2.1 A Multidimensional Perspective on Service Quality

Research has suggested that quality assessments of a service are not unidimensional. Comparisons between expectations and perceptions of actual service delivery therefore occur across different components of service (Boulding et al., 1993). Accordingly, various dimensions or aspects of service quality have been proposed. For instance, Albrecht and Zemke (1985) sought to find what airline passengers consider most important in their flying

Figure 14

The Role of Expectations in Service Quality



Source: Zeithaml and Bitner (1996)

experience. The four following factors emerged: (a) *care and concern*, (b) *spontaneity*, (c) *problem solving*, and (d) *recovery* (of situations which go wrong). Grove and Fiske (1983) have suggested that under high personal contact situations, those involved in the delivery of a service may be evaluated in terms of the following: (a) *technical-customer related skills*, (b) *personalities*, (c) *attitudes toward their work*, (d) *consistency of quality*, (e) *performance*, and (f) *appearance*. These facets offer the consumer some tangible criteria for the subjective evaluation of something that is largely intangible (i.e., the service). After a full review of the literature, Grönroos (1990) has suggested the following six criteria of good perceived service quality: (a) *professionalism and skills*, (b) *attitudes and behavior*, (c) *accessibility and flexibility*, (d) *reliability and trustworthiness*, (e) *recovery*, and (f) *reputation and credibility*.

SERVQUAL (Parasuranam et al., 1985, 1988, 1991) has been the most extensively used and researched measure of service quality. It represents a gap model of service quality and thus is based on expectancy disconfirmation. It has been presented as multidimensional. Taylor (1995) suggests that the mathematical form of this model is:

$$SQ = \sum_{j=1}^{k} w_j * (P_{ij} - E_{ij})$$

Where: SQ = SERVQUAL overall perceived quality of stimulus i

k = the number of attributes

w_j = a weighting factor if attributes have different weights

P_{ij} = performance perception of stimulus i with respect to attribute j

E_{ij} = service quality expectation for attribute j that is the relevant norm for stimulus j

Initially, a conceptual model was based on the following ten generic dimensions of service quality: (a) *reliability*, (b) *responsiveness*, (c) *competence*, (d) *access*, (e) *courtesy*, (f) *communication*, (g) *credibility*, (h) *security*, (i) *tangibles*, and (j) *understanding/knowing the customer* (see Parasuranam et al., 1985; Parasuranam, Zeithaml, & Berry, 1986). A dimension is viewed as a composite of attributes. Attributes are represented by measurement items. These dimensions were identified in exploratory research. They emerged in interviews

and focus group meetings conducted with managers and customers from large service companies in order to identify the determinants of service quality (Parasuranam, Zeithaml, & Berry, 1984). Scale purification later led Parasuranam et al. (1986) to reduce the number of service quality determinants to five somewhat distinct dimensions. Additional empirical analyses were conducted on data from four separate samples gathered in four different settings: a banking service, a credit card processing service, a repair and maintenance service, and a long distance telephone service. Parasuranam et al. (1988) reported that regardless of the type of service, customers evidently made use of similar criteria in their evaluations of service quality and that these criteria essentially spanned all aspects of the service.

SERVQUAL was designed for use in a wide array of service contexts and has been extensively used to pinpoint problematic areas in service delivery for particular companies. The multidimensional structure of the measure is obviously well suited for diagnostic purposes (Taylor, 1995). Accordingly, Parasuranam et al. (1988) suggest that the 22 item instrument is generic in that it "provides a basic skeleton through its expectations/perceptions format encompassing statements for each of the five service quality dimensions" (p. 30). They add that: "[t]he skeleton, when necessary, can be adapted or supplemented to fit characteristics of specific research needs of a particular organization" (p. 30) (for an example, see Lapierre, 1996). The generalizability of the scale to various service settings was further demonstrated in Parasuranam et al. (1991). The type of expectations which are used in SERVQUAL are apparent in an examination of its scales. Specifically, they refer to an "ideal" company (see Miller, 1977). Accordingly, the model represents a comparison to excellence in service by the consumer (Boulding et al., 1993; Oliver,1993a; Rust & Oliver, 1994).

The more recent five-dimensional structure of SERVQUAL involves the following factors (Parasuranam et al., 1988, 1991):

(a) *Tangibles*: The appearance of physical facilities, equipment, personnel, and communication materials;

(b) *Reliability*: The ability to perform the promised service dependably and accurately;

(c) *Responsiveness*: The willingness to help customers and to provide prompt service;

(d) *Assurance*: The knowledge and courtesy of employees and their ability to convey trust and confidence; and

(e) *Empathy*: The provision of caring individualized attention to customers.

Empirical studies have revealed that the five dimensions carry a positive and unequal impact on overall service quality perceptions with R^2 values ranging from 0.5 to 0.7 (e.g., Babakus & Boller, 1992; Cronin & Taylor, 1992; Parasuranam et al., 1985, 1991). *Overall service quality* has typically been assessed in studies with a single item measure. Cronbach's alpha reliability assessments for the five dimensions have emerged as quite similar across studies (e.g., Babakus & Boller, 1992; Babakus & Mangold, 1992; Bowers et al., 1994; Carman, 1990; Cronin & Taylor, 1992; Finn & Lamb, 1991; Headley & Miller, 1993; Lytle & Mokwa, 1992; Taylor & Cronin, 1994) and were in many instances at least as high as those reported in Parasuranam et al. (1988) which ranged from 0.87 to 0.90. The dimension labeled *reliability* has consistently emerged as the most important determinant of service quality in a variety of service settings (see Parasuranam, Berry, & Zeithaml, 1990; Parasuranam et al., 1988; Zeithaml et al., 1991) whereas *empathy* was found to be the least important predictor of service quality (e.g., Parasuranam et al., 1988). However, Parasuranam et al. (1988) suggested that its relatively lower level of contribution to service quality may have emerged because of multicollinearity.

Oliver (1993a) provides a summary of the variety of problems that have been identified with the SERVQUAL approach. First, the five proposed dimensions (Parasuranam et al., 1988, 1991) do not generalize across service settings or contexts. Specifically, the dimensions are not replicable across settings and often require the addition or deletion of items so that the measure can be adapted to particular settings (e.g., Babakus & Boller, 1992; Carman, 1990; Kierl & Mitchell, 1990; Mittal & Lassar, 1996; Peter, Churchill, & Brown, 1993). Relatedly, there appears to be a lack of constancy in the factor structures reported across studies. Some studies have reported a five-dimensional structure which did not necessarily reflect the same dimensions as those reported in Parasuranam et al. (1988) (e.g., Bowers et al., 1994; Cronin & Taylor, 1992; Brensinger & Lambert, 1990; Fusilier &

Simpson, 1995; O'Connor, Shewchuk, & Carney 1994; Taylor & Cronin, 1994). However, some studies have had difficulty in replicating a five dimensional structure (Babakus & Boller, 1992; Babakus & Mangold, 1992; Bebko & Garg, 1995; Finn & Lamb, 1991) whereas others have clearly recovered a greater number of dimensions than five (e.g., Carman, 1990; Headley & Miller, 1993; Lytle & Mokwa, 1992; McAlexander, Kaldenberg, & Koenig, 1994). A critical review of factorial structures of SERVQUAL reported across studies appears in Asubonteng, McLeary, and Swan (1996).

Second, the summing of aggregate dimension scores yields a composite scale (Ironson, Smith, Brannick, Gibson, & Paul, 1989). According to Oliver (1993a), this results in two negative consequences. On the one hand, this provides a composite scale that is "restricted to the semantic meaning conveyed by the items in each of its components, and no global or summary descriptor is available to represent overall feelings" (p. 70). On the other hand, it involves the assumption of "an implicit and unknown weighting scheme" (p. 70) (see also Taylor, 1995). Third, Oliver (1993a) argues that because of the manner in which quality is operationalized (i.e., expectancy disconfirmation), the framework does not account for the possibility that *expectations of low quality* may be held by consumers. He states that: "[i]f such were the case, service delivery [as] simply meeting expectations would, by definition, be of low quality" (p. 70). Fourth, a measurement approach based on difference scores is generally unreliable (e.g., Cronbach & Furby, 1970; Peter et al., 1993) and does not provide for assessments of a "summary 'gap' perception" across service dimensions (Oliver, 1993a, p. 70). Additional shortcomings not discussed in Oliver (1993a) involve a lack of convergent validity (Headley & Miller, 1993) and much criticism directed at the use of expectations and perceptions rather than only perceptions as evaluations (Asubonteng, McLeary, & Swan, 1996; Cronin & Taylor, 1992). Finally, a potential shortcoming of all competing models of service evaluation (see Taylor, 1995) including SERVQUAL is their lack of realism. These models tend to reflect highly cognitive processes in that they presume attentive/conscious evaluation. Evaluation can be pre-attentive (Arnold, 1960; Öhman, 1999; Scherer, 1993; Zajonc, 1980, 1984) and therefore does not necessarily involve the kind of mental arithmetic suggested by these models

8.2.2 Technical and Functional Aspects of Service Quality

Czepiel, Solomon, Surprenant, and Gutman (1985) state that: "[f]rom the client's perspective, a service can be divided into two elements: the actual ... service, and the manner in which the service is performed or delivered. Service quality is a term that encompasses both elements ..." (pp. 12-13). Similarly, Grönroos (1982, 1983, 1984, 1990) has postulated two types of *experienced service quality*: (a) a *technical* or outcome dimension and (b) a *functional* or process-related dimension. These aspects are represented in Figure 15. The former is concerned with the output of the encounter and represents *what* the customer is actually left with following service delivery (Grönroos, 1982, 1990; Lehtinen & Lehtinen, 1982). The latter is related to the customer's dealings with the service organization and reflects the manner in which the service occurs or is delivered (Grönroos, 1982, 1990; Parasuranam et al., 1985). The functional aspect is of an expressive and relational nature and is therefore closely related to the service provider-customer interaction (Grönroos, 1982, 1990; Lehtinen & Lehtinen, 1982). Grönroos' (1990) Perceived Service Quality Model appears in Figure 16.

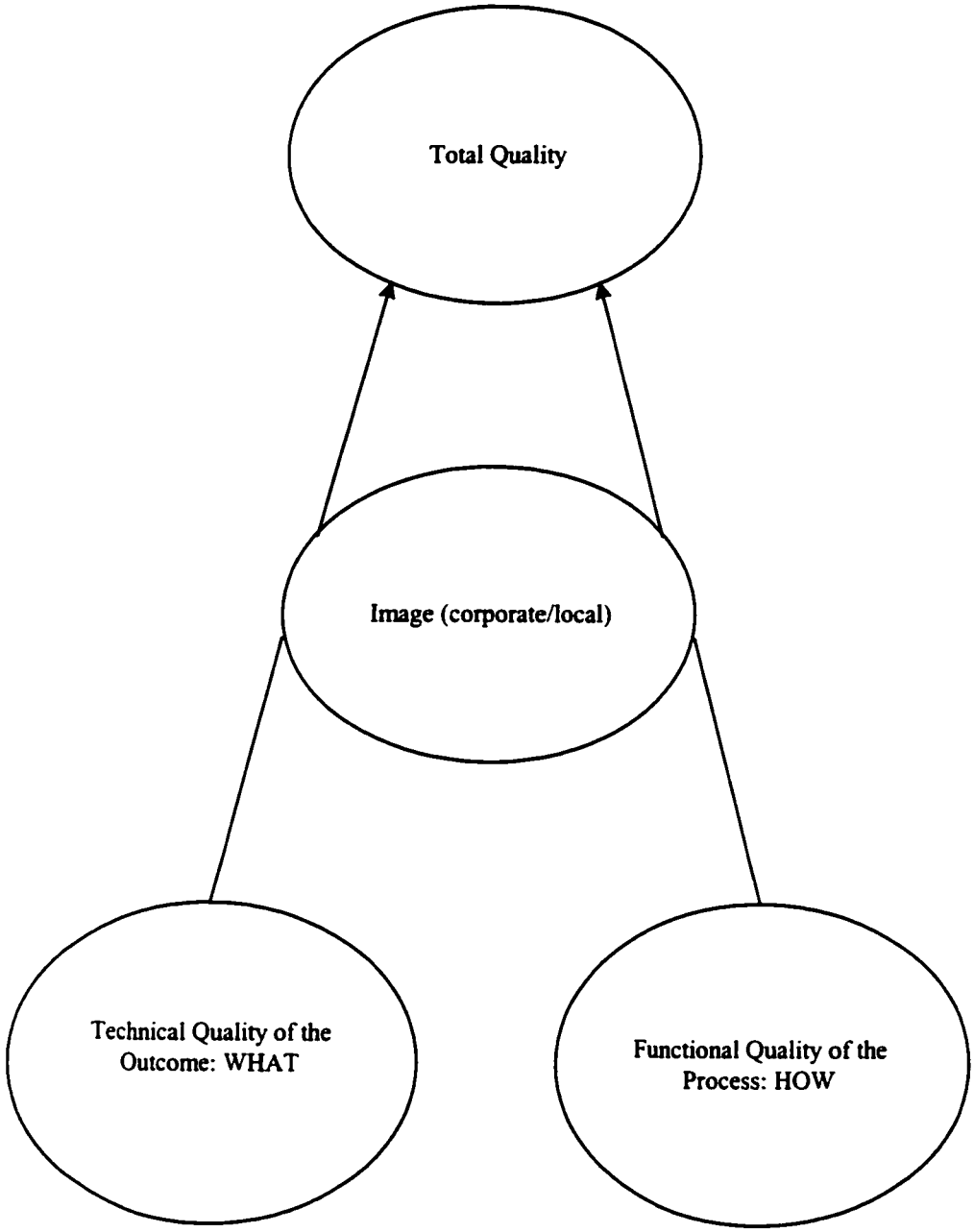
Researchers have proposed that technical quality is a necessary, but not always sufficient, condition for achieving customer satisfaction and that high levels of service quality involve attaining functional quality as well (e.g., Swan & Comb, 1976). More precisely, Grönroos (1990) states that:

> [a]s there are a number of interactions between the provider and the customer, including more or less successfully handled moments of truth, the technical quality dimension will not count for the total quality which the customer perceives has been received. The customer will obviously also be influenced by the way in which the technical quality, the outcome or end result of the process *is transferred* [italics added] to him or her (i.e., functional quality) .... It is easy to see that the functional quality dimension cannot be evaluated as objectively as the technical quality dimension; frequently it is perceived subjectively. (pp. 37-38)

SERVQUAL offers a focus on the functional or process-related aspect of service quality (Baker & Lamb, 1993; Mangold & Babakus, 1991; Richard & Allaway, 1993). Examinations of the five SERVQUAL dimensions with respect to the technical-functional

Figure 15

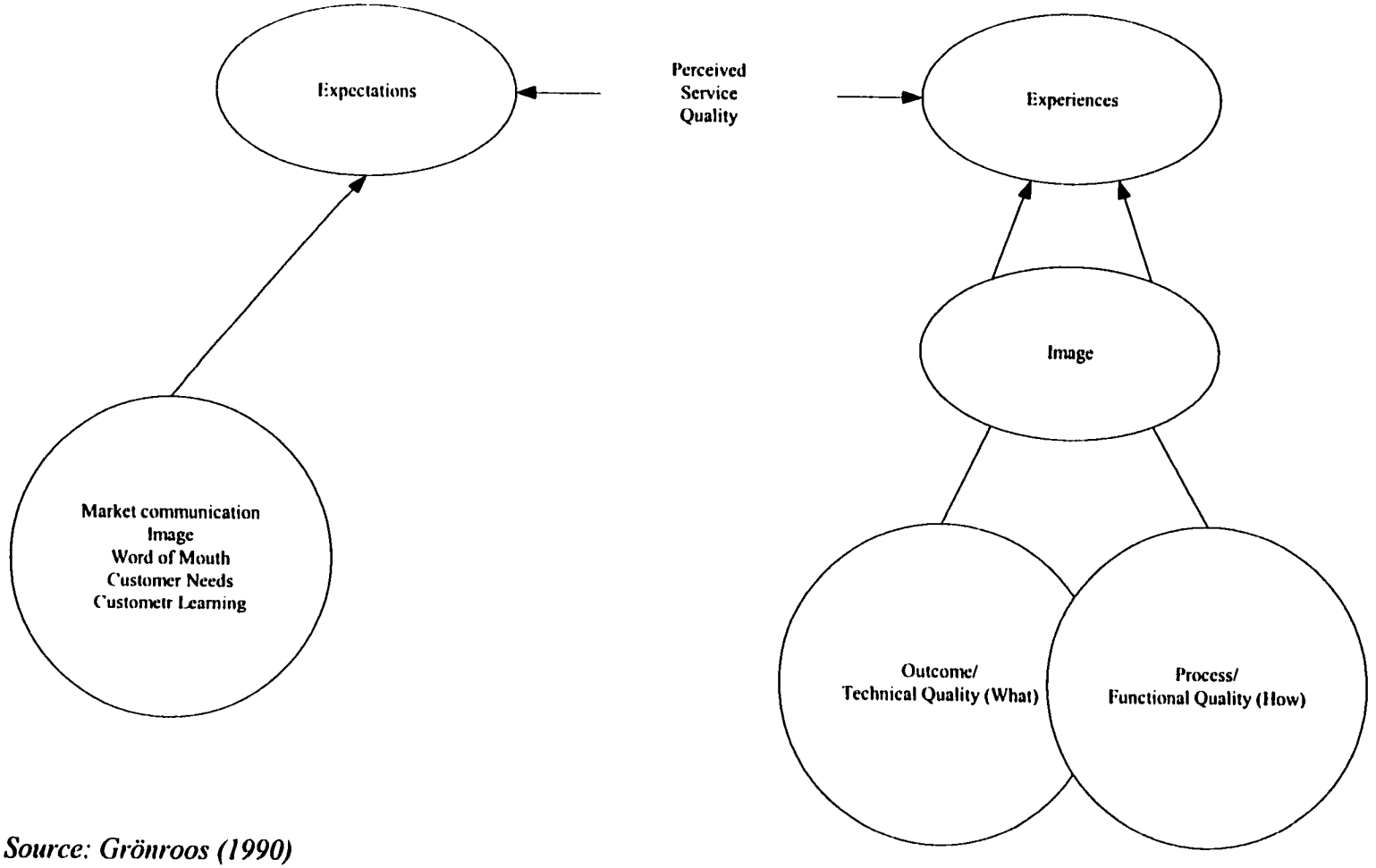
Gronroos' Two Service Quality Dimensions



Source: Grönroos (1990)

Figure 16

Grönroos' Perceived Service Quality Model



Source: Grönroos (1990)

quality distinction suggest that *reliability* is akin to technical quality and *responsiveness*, *assurance*, and *empathy* to functional quality (Mittal & Lassar, 1998).

8.2.3 Divergences From Expectancy-Disconfirmation Models

Some recent formulations of service quality have tended to diverge from the *expectancy disconfirmation* or *gap model*. For instance, Cronin and Taylor (1992) suggested that the SERVQUAL approach is generally inadequate. They went on to compare the effectiveness of four differing models of service quality which included the SERVQUAL model (i.e., performance - expectations), SERVPERF (i.e., performance only), and a variation of each model which was weighted with respect to the importance of each of the five dimensions of service quality. The latter two models mimicked an attitudinal approach. Their results indicated that SERVPERF, the performance-only measure, explained a greater amount of variation in a global measure of service quality than the three alternate models. This result was consistent across the four industries they examined. Additional evidence has also discredited the gap model that underlies SERVQUAL on conceptual and operational grounds (see Babakus & Boller, 1992; Brown, Churchill, & Peter, 1993; Boulding et al., 1993; Cronin & Taylor, 1994; Desarbo, Huff, Rolandelli, & Choi, 1994; Iacobucci, Grayson, & Ostrom, 1994; Oliver, 1993a; Teas, 1993, 1994).

Boulding et al. (1993) proposed an overall measure of service quality based on the *reliability* dimension of SERVQUAL which also disregards the expectancy disconfirmation paradigm. They state that:

> [o]ur model also includes expectations and perceptions. However, it differs from the disconfirmation formulation in that we postulate that individuals' overall quality assessments, and thus behaviors, are affected only by their current perceptions of the service, and not their current expectations. These current perceptions, in turn, are the result of customers' two types of prior expectations of the service and the most recent service encounter. (p. 9)

Parasuranam et al. (1994a) have also acknowledged the superior predictive power of the performance-only measure but have argued that it is less useful to practitioners than the full SERVQUAL model based on gaps between expected and perceived behavior. Finally, Grönroos (1993) provided a review of the service quality research. He suggested that SERVQUAL and similar attempts at measuring service quality represented a second phase

in research which largely involved static models of the process. Alternatively, he argued that a third phase in service quality research was instigated by studies which questioned the validity of the disconfirmation paradigm (e.g., Bolton & Drew, 1991; Carman, 1990) and that future research in this third phase should involve the generation of dynamic models and the use of refined measurement attempts (see also Lapierre, Filiatrault, & Perrien, 1996). Recently, a dynamic model of service usage was presented in Bolton and Lemon (1999). The dynamic nature of the study involved gathering data at two different moments in time.

8.3 Level of Felt Satisfaction

Oliver (1993a) notes that *satisfaction* is derived from the latin *satis* (enough) and *facere* (to do or make) and that it suggests *fulfillment* or *satiation*. However, Oliver (1989) suggests that interpretations of the term in the consumer domain tend to include a greater range of responses than those suggested by its literal meaning. Accordingly, Oliver (1993a) proposes that: "consumer researchers have moved away for the literal meaning of satisfaction and now pursue the concept as the consumer experiences and describes it" (p. 72). Current definitions of satisfaction are often process definitions (Oliver, 1989). For instance, Hunt (1977) has delineated satisfaction from pleasure-displeasure: "satisfaction is not the pleasurableness of the [consumption] experience. It is the evaluation rendered that the experience was at least as good as it was supposed to be" (p. 459).

Alternatively, Tse and Wilton (1988) further specify the evaluation involved as a form of expectancy disconfirmation and hold that satisfaction is: "the consumer's response to the evaluation of the perceived discrepancy between prior expectations [or some other norm for performance] and the actual performance of the product as perceived after its consumption" (p. 204).

Oliver (1989) suggested a framework in which satisfaction is presented as a state of fulfillment that is related to arousal and reinforcement. Four states are described which are not limited to satiation. High arousal satisfaction is defined as *satisfaction as surprise* and can be positive (e.g., delight) or negative (e.g., shock). Alternatively, low arousal satisfaction is described as *satisfaction as contentment*. It assumes that the good (product or service) performs at a satisfactory level in an ongoing and passive fashion. On the other hand,

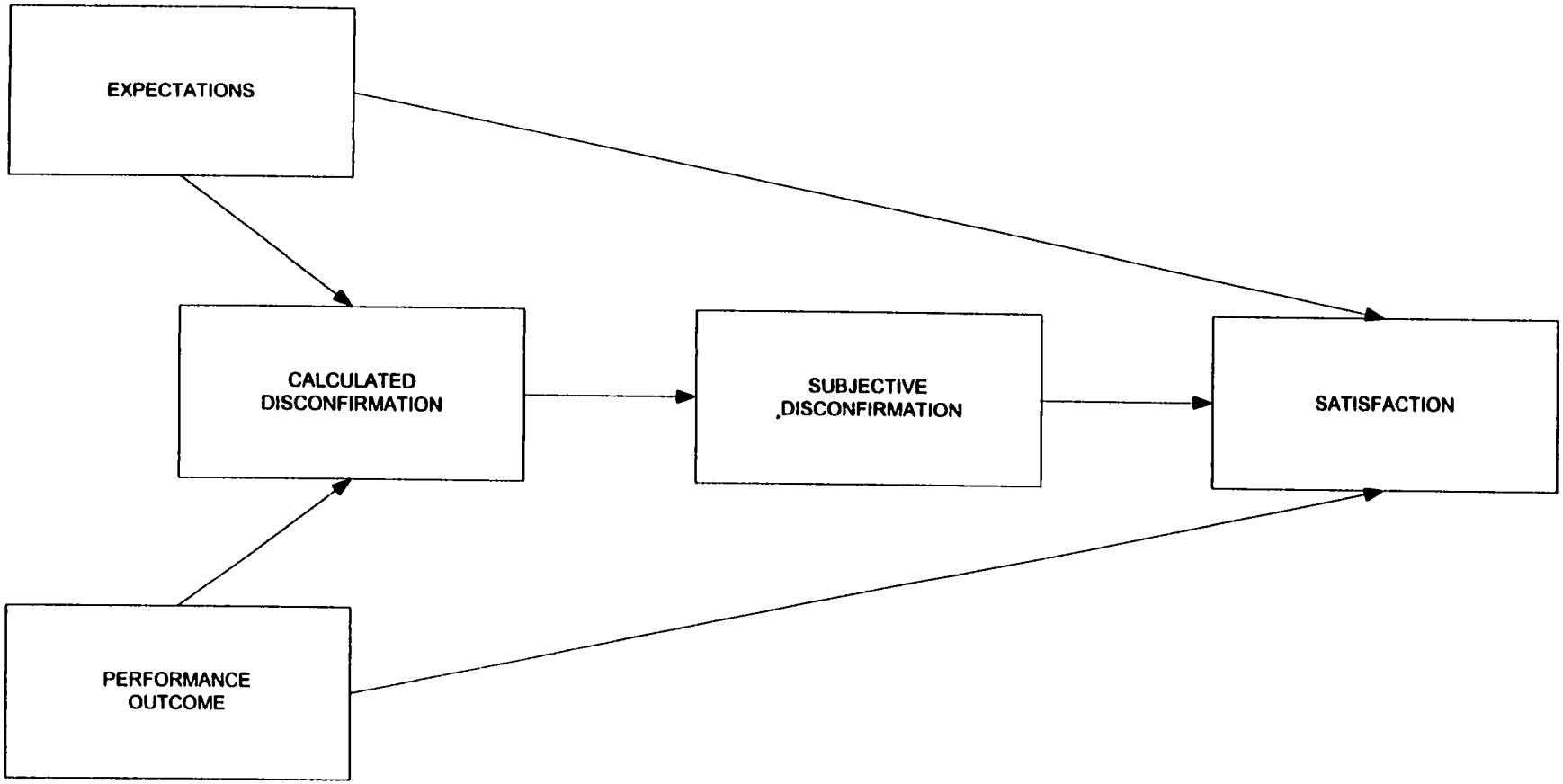
satisfaction as pleasure occurs as a result of positive reinforcement (e.g., entertainment) whereas *satisfaction as relief* is determined by negative reinforcement or the removal of an aversive stimuli (e.g., pain relievers). By not limiting satisfaction to mere satiation, overfulfillment can be satisfying and service delivery can emerge as exceeding expectations on the dimensions of the framework (Oliver, 1989).

Another interpretation of satisfaction is process-based and involves the expectancy disconfirmation paradigm (Oliver, 1993a, b, 1996; Rust & Oliver, 1994). A comparison to some standard in fact represents the dominant paradigm used to explain (dis)satisfaction with services (Iacobucci et al., 1994). Thus, as in the SERVQUAL model of service quality (Zeithaml, Parasuranam, & Berry, 1985; 1988) expectations are compared to an actual outcome and this process either directly or indirectly results in dis/satisfaction (Bitner, 1990; Churchill & Surprenant, 1982; Bolton & Lemon, 1999; Boulding et al., 1993; Oliver, 1977, 1980, 1981, 1989, 1993a, 1996; Oliver & Bearden, 1985; Oliver & DeSarbo, 1988; Oliver & Swan, 1989; Tse, Nicosia, & Wilton, 1990; Tse & Wilton, 1988). Three general outcomes are in fact predicted from a comparison of actual performance to expectations: (1) *dissatisfaction* will typically result from a negative expectancy disconfirmation; (2) *delight* is determined by a positive disconfirmation; and (3) *satisfaction* is said to result from expectancy confirmation (Johnston, 1995). The state of satisfaction which is determined by expectancy confirmation is sometimes defined as the *zone of indifference* (Woodruff, Cadotte, & Jenkins, 1983) or *zone of tolerance* (Kennedy & Thirkell, 1988). Actual performance must fall outside this zone for disconfirmation to occur. The expectancy disconfirmation paradigm has apparently emerged as fairly robust across various service settings which have included restaurant dining (e.g., Swan & Trawick, 1981), telephone services (e.g., Bolton & Drew, 1991b), and health care (e.g., Oliver & Bearden, 1985).

Oliver's operational model of satisfaction is presented in Figure 17. This model along with detailed descriptions of each element are discussed in Oliver (1993a). Expectancy disconfirmation is presented here as a "better-than/ worse-than" heuristic (Oliver & DeSarbo, 1988). The expectation referent is somewhat different from the *ideal* (or *should*) expectation involved in service quality assessments. In the case of satisfaction, *desirable* (or *will*)

Figure 17

Oliver's Operation of the Expectancy Disconfirmation and Performance Model



Source: Oliver (1993a)

expectations can be a function of norms, needs, and fairness perceptions (Oliver, 1993a). Confirmation or when expectations are met has been found to have little impact on satisfaction. On the other hand, positive disconfirmation or when outcomes are better than expected results in enhanced satisfaction whereas negative disconfirmation lowers satisfaction levels (Oliver, 1977; Oliver & DeSarbo, 1988). In addition to expectancy disconfirmation, the direct effects of outcomes and/or expectations have been found to impact satisfaction (e.g., Bolton & Lemon, 1999; Bolton & Drew, 1994; Cadotte et al., 1987; Churchill & Surprenant, 1982; Oliver, 1980; Oliver & DeSarbo, 1988; Tse & Wilton, 1988). Recent research also points to affect as antecedent (Westbrook, 1987; Westbrook & Oliver, 1991).

Holbrook (1994) has noted much confusion in service evaluation research. One important issue that emerged over the 1990s was whether quality and satisfaction represented distinct or discriminate constructs (e.g., Cronin & Taylor, 1992; Rust & Oliver, 1994; Taylor & Baker, 1994). Recent evidence appears to suggest that they are (for a review, see Taylor & Baker, 1994). To clarify the distinctions between satisfaction and service quality, Rust and Oliver (1994) propose that: (a) service quality judgments result from specific dimensions and ideal expectations whereas satisfaction judgments involve a wider array of determinants which may include quality judgments, attributions[90], needs, and equity[91] perceptions; (b) quality assessments can ensue without past experience whereas satisfaction is "purely experiential" (p. 6) or dependent on previous experience with an organization (Oliver, 1993a); and (c) "quality has fewer conceptual antecedents although personal and impersonal communications play a major role" (p. 6) (see also Oliver, 1993a). With respect to satisfaction, Oliver (1989) argues that emotions can intervene as mediators between performance and satisfaction and may consequently lead to occasions where "the same satisfaction 'score' could have different implications for different consumers and different

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90 Bitner (1990, p. 71) shows *expectancy disconfirmation* impacting on *attributions*, which in turn determines *service encounter satisfaction* which then impacts on *perceived service quality*.

91 For an example of how (in)equity perceptions can play a role in satisfaction, the reader is invited to peruse Bolton and Lemon (1999, p. 172) where a dynamic model of service usage is proposed which shows *payment equity* impacting on *overall satisfaction* which, in turn, impacts *usage*.

purchase contexts by virtue of the emotions generated by the product experience" (p. 2) In addition, equity judgments and attribution are also potential antecedents to satisfaction (see also Oliver, 1993a, 1996). Elsewhere, Oliver (1993b) uncovered relationships between positive and negative affective states, attribute satisfaction, and expectancy disconfirmation.

8.4 Satisfaction, Quality, and Behavioral Consequences

Among the issues that remain unresolved in the service evaluation literature is the causal order of service quality and satisfaction (Taylor & Baker, 1994). Rust and Oliver (1994) suggest that the conceptual arguments presented in the literature with respect to whether satisfaction antecedes quality or vice-versa are equivocal and that additional research is needed to resolve the causal order of these variables. Similarly, Bitner and Hubbert (1994) state that:

> [w]ithout a doubt, customer satisfaction in each individual service encounter, the customer's overall satisfaction with a particular service provider, and perceptions of service quality are interrelated - in many instances highly correlated. Yet to date, neither academic researchers nor practitioners have developed common definitions or ways of measuring these three types of evaluations. (p. 73)

The issue of 'which comes first' is quite controversial (Iacobucci et al., 1994; Taylor & Baker, 1994). In some studies, perceived service quality has been positioned as an antecedent to felt levels of satisfaction (e.g., Cronin & Taylor, 1992; Oliver, 1993a; Rust & Oliver, 1994; Woodside, Frey, & Daly, 1989). For example, Rust and Oliver (1994) state: "[t]hus, we view service quality as affecting service satisfaction at the encounter-specific level" (p. 7). They add that in this perspective, "satisfaction is viewed as a summary cognitive and affective response to all elements of the transaction" (p. 14). Accordingly, Bitner and Hubbert (1994) concede that although SERVQUAL dimensions appear as good predictors of overall service quality, the dimensions when used at the encounter level "may be good predictors of encounter satisfaction" (p. 76). Others have contended that overall service quality is a higher-order construct and represents an outcome of encounter satisfaction and overall satisfaction with the organization (e.g., Bitner, 1990; Bolton & Drew, 1991a, 1991b; Mohr & Bitner, 1995b). Oliver (1993a) has suggested that this order is tenable only if quality is conceptualized as an attitude or in a global and enduring manner.

Level of aggregation appears as an important dimension of the causal order controversy (Rust & Oliver, 1994). This dimension refers to whether satisfaction or quality is to be taken as the superordinate or overall/global assessment. Recent work has suggested that both service quality and satisfaction exhibit encounter-specific and global forms (cf. Anderson & Fornell, 1994; Bitner & Hubbert, 1994; Rust & Oliver, 1994; Taylor & Baker, 1994). For instance, Bitner and Hubbert (1994) distinguish *overall service satisfaction* from *encounter satisfaction*. The latter is limited to a discrete encounter whereas the former represents "a more global measure of satisfaction with the organization's services" (p. 74). Accordingly, Bolton and Drew (1991b) conceptualized *overall satisfaction* as a function of satisfaction with multiple encounters with an organization. Similarly, Bitner (1990) states: "customer satisfaction depends directly and most immediately on the management and monitoring of individual service encounters" (p. 69). Such a distinction is also apparent in Parasuranam et al. (1985), Shostack (1987), Solomon et al. (1985), as well as in Surprenant and Solomon (1985). However, measures of *overall service satisfaction* are typically poorly defined. For instance, Cronin and Taylor (1992) used a one-item measure of the consumer's overall feelings toward a company and Bitner (1990) used the three-item measure proposed in Westbrook (1980).

Much of the debate about the causal order of quality and satisfaction is also fueled by the inability to arrive at acceptable *unique* conceptual definitions of service quality and satisfaction (Cronin & Taylor, 1994; Holbrook, 1994; Taylor, 1995; Taylor & Baker, 1994). Overlapping conceptualizations of service quality and satisfaction are clearly evident in the literature (Taylor & Baker, 1994). In some studies, expectancy disconfirmation over quality dimensions has been presented as surrogate satisfaction (e.g., Parasuranam et al., 1993; Swartz & Brown, 1989). Taylor (1995) argues that "there does appear to be widespread agreement on one issue: *service quality perceptions are a form of consumer attitudes*" (p. 2). Accordingly, Bitner (1990) argues that service quality represents a general attitude toward the firm as indicated in Parasuranam et al. (1988) as well as in Zeithaml (1988). Next, Bitner (1990) provides an operational definition of *encounter satisfaction* that is based on expectancy disconfirmation. However, ambiguity appears when Bitner (1990) provides a

conceptual definition of *encounter satisfaction*. She states that: "[s]atisfaction is related closely to, but is not the same as, the customer's general attitude toward the service" (p. 70). She adds that: "[t]he key to distinguishing satisfaction from attitude is that satisfaction assessments relate to individual transactions whereas attitudes are more general" (p. 70). This distinction appears to be one of frequency of exposure to or experience with the service provider rather than a clear conceptual differentiation. In a like vein, Iacobucci et al. (1994) suggest that both service quality and consumer satisfaction may be categorized as "attitudes." Clearly, confounding between service quality and satisfaction is apparent in the service evaluation literature.

Oliver (1993b) holds that "[a] satisfactory purchase experience would appear to be one requirement for the type of continued interest in a product that might lead to repeat purchasing" (p. 418). Accordingly, a stream of research has addressed or focused on the consumers' behavioral intentions/consequences of service evaluation (e.g., Anderson & Sullivan, 1995; Bitner, 1990; Bolton & Lemon, 1999; Boulding et al., 1993; Cronin & Taylor, 1992; Mittal, Kumar, & Tsiros, 1999; Zeithaml, Berry, & Parasuranam, 1996). For instance, Boulding et al. (1993) and especially Zeithaml et al. (1996) have tended to shift the focus of research from the determinants of service quality toward behavioral intentions vis-à-vis a firm. Zeithaml et al. (1996) suggest that the notion of service quality is important only if it leads to consumer behaviors that, in turn, result in increased profits or sales for a firm is of obvious relevance to practitioners:

> During the 1980s, the primary emphasis of both academic and managerial effort focused on determining what service quality meant to customers and developing strategies to meet customer expectations .... Since then, many organizations - including those whose primary offerings involve physical goods such as automobiles or computers - have instituted measurement and management approaches to improve their service. The service-quality agenda has now shifted and reconfigured to include other issues. The issue of highest priority today involves understanding the impact of service quality on profit and other financial outcomes of the organization .... (p. 31)

Accordingly, both studies modeled service quality as an antecedent to behavioral intentions. Zeithaml et al. (1996) went a few steps further and showed behavioral intentions impacting on actual behavior which, in turn, impacted the financial consequences for the firm. In a like

vein, Boulding et al. (1993) propose that:

> [d]elivery of high service quality is presumed to relate positively to the success of the firm. Interestingly, no empirical research outside a laboratory setting has been reported that supports this relationship between service quality perceptions and behavioral outcomes of importance to the firm. Unless this positive relationship exists, understanding how customers form judgments about service quality has limited managerial relevance. (pp. 11-12)

Cronin and Taylor (1992) have also suggested the importance of purchase intention as a consequence of evaluation. They found that global satisfaction and not service quality had a direct impact on purchase intentions. According to Oliver (1993a), "this set of findings is consistent with a quality -> satisfaction -> intention causal chain" (p. 78). The satisfaction-intention link has also tended to be modeled in other studies with global (overall or cumulative) satisfaction rather than with encounter-specific satisfaction (e.g., Garbarino & Johnson, 1999; Mittal et al., 1999; Taylor & Baker, 1994). Still other studies have demonstrated links between satisfaction at the transaction-level and intentions (e.g., Anderson, Fornell, & Lehmann, 1994; Zeithaml et al., 1996).

8.5 Service Evaluation Issues in Light of Psychological Perspectives on Cognition and Emotion

8.5.1 Indications from Appraisal Theories of Emotion

Many issues have emerged in the service evaluation literature. Two issues in particular can be further clarified by drawing on our review of appraisal theories of emotion and the cognition-emotion debate. They are: (1) the discriminant validity of satisfaction with respect to (a) service quality and (b) emotion and (2) the causal sequence of service quality and satisfaction. Many similarities appear between the quality-satisfaction debate and the cognition-emotion debate in the field of emotion (see Chapter One). The second issue (causal sequence) hinges on the first (discriminant validity). If satisfaction is imbued with cognitive characteristics, then it appears that the use of an appraisal theory framework to further clarify the status of service evaluation factors is perhaps futile. On the other hand, if satisfaction is given affective status then appraisal theories represent a fertile framework and body of research against which to discuss the causal relationship between service quality and satisfaction. A third explanation in accordance with appraisal theories is that the causal

relationship between service quality and satisfaction has a missing link which is perhaps *emotion*. Given Oliver's perspective on satisfaction, appraisal theories appear well suited to the service evaluation context and provide a basic nomological net for distinguishing between cognitive and non-cognitive (emotional) states. Adopting such a perspective may allow one to disentangle the often confounded and ambiguous definitions[92] of service evaluation factors (Cronin & Taylor, 1992, 1994; Taylor & Baker, 1994) and the relations based on these concepts.

Service quality and satisfaction are often confounded at conceptual and operational levels (Bitner & Hubbert, 1994). Some have argued that service quality and satisfaction are almost interchangeable evaluations (e.g., Kleinsorge & Koenig, 1991; Rust & Zahorik, 1993). Other have suggested that SERVQUAL is a better measure of satisfaction than quality (see Taylor & Cronin, 1994). Still others have suggested that service quality represents a cognitive judgment whereas satisfaction is a more affective evaluation (Dabholkar, 1993; Iacobucci et al., 1996; Oliver, 1981, 1989, 1993a, 1996; Rust & Oliver, 1994;Westbrook & Oliver, 1991). The treatment of service quality implies that it is purely cognitive. Although it has been typically defined as a global attitude, a variety of proposed operational definitions of quality imply cognitive status with varying emphasis on actual perceptions of performance and/or expectancies and/or importance of attributes (i.e., items) (for a review, see Taylor, 1995). One operational definition of quality is SERVQUAL. In this view, the perception of quality at the encounter level is an expectancy disconfirmation in that it is "a comparison [of actual performance] to excellence in service by the customer" (Oliver, 1993a, p. 71). By equating service quality to expectancy disconfirmation and not presenting service quality as a result of expectancy disconfirmation but as the expectancy disconfirmation itself makes Oliver's (1989, 1993a, b) account of service quality à la Parasuranam and associates quite similar and comparable to antecedent appraisal in cognitive theories of emotion. Furthermore, the form of the mental calculus implied by SERVQUAL and competing models

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92 Service quality and satisfaction have no unique definition, be it conceptual or operational, in the service evaluation literature. This becomes evident given the variety of models of service quality (see Taylor, 1995) and the ambiguity involved in the many perspectives on satisfaction (see Holbrook, 1994; Oliver, 1993a, b, 1994; Rust & Oliver, 1994; Taylor & Baker, 1994).

of service quality (see Taylor, 1995) suggests that they involve controlled rather than automatic processing (see Schneider et al., 1984). Amongst other things, controlled processing involves conscious awareness, evaluative intent, and the effortful use of cognitive resources (Kunda, 1999).

Things are less clear in the case of satisfaction. In some instances, satisfaction is treated as an outcome of purely cognitive antecedents such as varying forms of expectancy disconfirmation (e.g., Bitner, 1990; Spreng, MacKenzie, & Olshavsky, 1996) or product and service-provider attribute evaluations (e.g., Mittal, Kumar, & Tsiros, 1999). A comparison to standards is in fact the dominant paradigm in satisfaction research (Iacobucci et al., 1994). In other instances, satisfaction is presented as an outcome of affective antecedents (Mano & Oliver, 1993; Westbrook, 1987; Westbrook & Oliver, 1991). In still other works, the theoretical/model-based treatment of satisfaction by Oliver implies that it is a superordinate affect-laden construct that is influenced by antecedent affective states and cognitive processes such as attribution, equity, emotion and expectancy disconfirmation over quality and non-quality dimensions (Oliver, 1989, 1993a, b, 1996). In this perspective, *satisfaction*, the affect-laden construct, emerges partly as the consequence of one or more expectancy disconfirmation appraisal processes. However, it is interesting to note that no significant relationship between satisfaction and expectancy disconfirmation was reported in Churchill and Surprenant (1982). In addition, it is important to point out that the multiple determinant treatment of satisfaction (see Oliver, 1996) appears conceptual rather than empirical. In fact, to our knowledge, no study has attempted to relate all the proposed determinants of satisfaction in a single attempt.

Oliver (1981) defines the state of satisfaction as "the summary psychological state resulting when the *emotion* [italics added] surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (p. 27). This definition clearly holds that satisfaction is a consequence of expectancy disconfirmation and that the resulting state of (dis)satisfaction is an affective one. With less precision as to its nature, Tse and Wilton (1988) also position satisfaction as a *response* to expectancy disconfirmation. These perspectives appear to somewhat represent simplistic versions of modern appraisal

theories of emotion. On the other hand, Hunt (1977) holds that "satisfaction is not the pleasurableness of the experience, it is the evaluation rendered that the experience was at least as good as it was supposed to be" (p. 459). The suggestion that satisfaction involves a postconsumption evaluative judgment of antecedent consumption emotions is also apparent in Westbrook (1987) and Yi (1990). Thus, it seems that satisfaction is not an emotion but is partly a consequence of emotion. Accordingly, Westbrook (1987) demonstrated that valence and arousal, the two underlying dimensions of emotional responses, carried an impact on satisfaction. A similar account appears in Oliver (1989). Elsewhere, Oliver (1993b) proposes a model in which the satisfaction response is a function of expectancy disconfirmation, attribution, equity/inequity and positive/negative affect. Hence, Rust and Oliver (1994) state that satisfaction "is known to be influenced by a number of cognitive and affective processes including equity, attribution, and emotion" (p. 6). More recently, Oliver (1996, 1999) has defined satisfaction as "pleasurable fulfillment" (1999, p. 34). Specifically, Oliver (1999) states that:

> [t]hat is, the consumer senses that consumption fulfills some need, desire, goal, and so forth and that this fulfillment is pleasurable. Thus, satisfaction is the consumer's sense that consumption provides outcomes against a standard of pleasure versus displeasure. (p. 34)

The term *evaluation* is used broadly in discussions of satisfaction. The literature in psychology is by no means clearer (e.g., Abelson, Kinder, Peters, & Fiske, 1982). The term *evaluation* is often likened to *attitude* and its use in attempts to relate emotion to cognition reflect a general tendency to blend emotion onto cognition in frameworks of consumer behavior (Cohen & Areni, 1991). Some time ago, Converse (1970) looked into the attitude/non-attitude distinction. Converse (1970) based his proposed distinction on the observation that an individual may respond to an attitude item even though an attitude did not exist with respect to an object prior to attitude assessment. Consequently, Converse (1970) argued that the attitude/non-attitude distinction should be based on measurement error. Specifically, non-attitude was characterized by high levels of measurement error or unreliable measurement (i.e., random measurement). An alternate explanation which involves learning or prior exposure to an object was provided in Fazio, Sanbonmatsu,

Powell, and Kardes (1986). They argued that the attitude/non-attitude distinction should be thought of as a continuum with non-attitude (no a priori evaluation) at one end and attitude at the other. As one moves along the continuum, the evaluation exists and is more and more accessible from memory. Thus, at the end of the continuum, attitude represents an evaluation that is learned and is highly accessible from memory (see also Cohen & Areni, 1991). This notion stemmed from a series of experiments on attitude accessibility conducted earlier where it was argued that attitudes should be viewed as simple associations between a given object and a given evaluation (see Fazio, Chen, McDonel, & Sherman, 1982; Fazio, Powell, & Herr, 1983; Powell & Fazio, 1983). Fazio et al. (1986) state that:

> [t]he term *object* is used in a broad sense. Individuals may have evaluations of a wide variety of potential attitude objects, including social issues, categories of people, and specific individuals, as well as physical objects. Likewise, the term *evaluation* is used in a broad sense. It may range in nature from a very "hot" affect (the attitude object being associated with a strong emotional response) to a "colder" more cognitively-based judgment of one's affect (feelings of favorability or unfavorability) toward the object .... (p. 230)

Similarly, Westbrook and Oliver (1991) suggest that satisfaction is "attitude-like in some respects" (p. 84). They add that: "[t]he evaluative aspect of the satisfaction judgment is typically assumed to vary along a hedonic continuum, from unfavorable (i.e., dissatisfied) to favorable (i.e., satisfied)" (pp. 84-85). Thus, the term *evaluation* as used in the context of satisfaction research potentially involves affective and cognitive counterparts and the strength of the association between the evaluation and the object represents the strength of the attitude (Fazio et al., 1986). More generally, the use of the term *evaluation* points to the subordination of affect with respect to cognition and to a blending of affect into cognition (Cohen & Areni, 1991).

A variety of older (e.g., Roseman, 1979, 1984; Scherer, 1984a; Smith & Ellsworth, 1985; Weiner, 1985a, 1986) and more recent appraisal theories (e.g., Lazarus, 1991a; Roseman, 1991; Smith & Lazarus, 1993) have sought to specify the pattern of appraisal dimensions that result in discrete emotions. The notion of *expectancy disconfirmation* in some form or another appears in many of these theories (e.g., Roseman, 1984, 1991; Scherer, 1988b; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985; Weiner, 1985a, 1986). For

instance, Weiner (1985a, 1986) argues that an outcome-dependent affective state ensues after an event. This state is valenced (i.e., pleasant-unpleasant) but unspecified. However, perceptions of the outcome as a failure or as something unexpected, trigger a subsequent multidimensional attribution process which is purported to determine discrete emotions (Weiner, 1986). This perspective clearly places expectancy disconfirmation as an antecedent to attribution and attribution as an antecedent to emotion.

Bitner (1990) applied Weiner's (1985a) appraisal theory to service evaluation. She suggested the following causal sequence: *expectancy disconfirmation -> attributions -> service encounter satisfaction -> perceived service quality.* In an attempt to differentiate *satisfaction* from *service quality*, Bitner (1990) holds that *satisfaction* is "related closely to, but not the same as, the customer's general attitude toward the service" (p. 70). This general attitude is said to reflect service quality which is presented at the aggregate or global level. Later, Bitner (1990) indirectly acknowledges that satisfaction is an affective construct by stating that the causal sequence she proposes is one which represents "an attribution-affect-behavior" sequence. However, she goes no further in qualifying *satisfaction* or in addressing affect per se in her model.

Oliver (1994) argues that among the many studies which he identified as addressing the link between service quality and satisfaction (Bitner, 1990; Bolton & Drew, 1991; Cronin & Taylor, 1992; Swartz & Brown, 1989; Zeithaml et al., 1993), none "explicitly considers affect" (p. 17). In fact, these studies appear to underscore a lack of various forms of validity including content and discriminant validity. The definitions of satisfaction are grossly unspecified and thus remain ambiguous and vague. Hence, they do not permit one to delineate the domain of satisfaction from that of service quality at the conceptual and operational levels (see Kirlinger, 1986). Moreover, content and discriminant validity issues in the services evaluation literature are not limited to service quality and satisfaction but also revolve around satisfaction and emotion. In Bitner's (1990) oft-cited study, where reliance on Weiner's (1985a, 1986) appraisal theory is evident and acknowledged by the author, the predictions of Weiner's (1985a, 1986) theory are cut short so to speak in that the position in Bitner's (1990) nomological net that one would expect to be occupied by a discrete

emotional state as proposed is in fact reserved for satisfaction. In other words, what Bitner (1990) labels *service encounter satisfaction* is presented as a resultant discrete emotional state in Weiner's (1985a, 1986) theory, (for a discussion of attribution-based theories of emotion, see Scherer, 1999).

The status of emotion in the services marketing literature is clearly lacking vis-à-vis current knowledge in the field of psychology. In many instances, it is simply not addressed in theoretical frameworks which in fact are geared to accommodate it (e.g., Bitner, 1990; Spreng et al., 1996). These frameworks do in essence reflect cognitive antecedents that according to appraisal theories of emotion should result in an affective state which may be further specified as a discrete emotion if sufficient cognitive complexity is addressed by a proposed model. In other instances, emotion appears out of the blue in that no process is specified to explain its occurrence. This is perhaps made evident in the model of service satisfaction proposed by Krishnan and Olshavsky (1995). This model displays attribution as a moderator of an "automatically evoked emotion." Specifically, the authors state that: "[w]henever the performance of a hedonic attribute is 'perceived,' one or more emotions ... are automatically evoked" (p. 455). The role of attributions is different in Krishnan and Olshavsky (1995) than in Weiner (1985a, 1986) in that they view the attribution effect occurring with respect to the origins of the emotion(s) that are automatically triggered. They state that: "[i]ndividual attributions ... on the origin of these emotions moderate the specific types of emotions experienced, and also moderate the effects of these emotions on satisfaction" (p. 454). Given our review of how emotions can arise (see Chapters 1 and 2), the emotion process they have suggested is highly obscure (i.e., they do not specify it more than an "automatic" occurrence) and the role of attribution appears, to say the least, misspecified with respect to Weiner's (1985a, 1986) cognitive theory of emotion which holds that attribution occurs with respect to an event and as a process serves to further specify a diffused affective state if the event constitutes failure, is important, or results in unmet expectations. It appears that Krishnan and Olshavsky's (1995) model constitutes a good example of the confounding which occurs at a conceptual level with respect to cognition and emotion in the service evaluation literature and it also exemplifies the treatment of emotion

in this literature in that emotions are either minimally addressed or seem to appear miraculously for lack of a better word.

More recent and more complex appraisal theories than the one presented in Weiner (1985a, 1986) have been proposed. For instance, Lazarus (1991a) suggests that *core relational themes* (e.g., "irrevocable loss") represent distinctive patterns of primary and secondary appraisals (see also Smith & Lazarus, 1993). The variety of quality and non-quality appraisals (i.e., expectancy disconfirmation processes) suggested in the service evaluation literature which are said to impact on satisfaction (Oliver, 1989, 1993a) and a combination of additional appraisal dimensions potentiates a sequence that is similar to that suggested by Lazarus (1991a) in that primary appraisals or evaluations based on motivational congruence (e.g., Does this interfere or is this beneficial to my current goals?) distinguish between positive and negative affective states and subsequent secondary appraisals or coping potential evaluations (e.g., Can I cope with this situation?/ Do I have the resources to improve this situation?) contribute to further differentiate affective states and result in discrete emotions. Invariably, cognitive theories of emotion hold that combinations of appraisals elicit and differentiate emotional responses (Parkinson, 1997). When transposed in the service encounter, the general appraisal theory perspective clearly suggests that service quality as an expectancy disconfirmation represents one type (dimension) of antecedent appraisal over multiple domains of service. This is evident in that the many reviews of appraisal dimensions consistently list expectancy disconfirmation or some analogue as an appraisal dimension (e.g., Reisenzein & Spielhofer, 1994; Scherer, 1988b, 1993).

However, given the various, often vague, and ambiguous definitions discussed above, satisfaction is not the affective state which results directly from appraisal. This view of satisfaction would only be tenable if satisfaction represented a purely affective construct with a specific referent. Such a state is usually referred to as an *emotion* (Cohen & Areni, 1991). It does not in that it is broader and partly a consequence of antecedent affect (Westbrook, 1987; Westbrook & Oliver, 1991). Hence, the missing link between appraisal and satisfaction in studies such as Bitner's (1990) appears to be *emotion*. Mano and Oliver (1993)

do not include an expectancy disconfirmation process[93] in their model of evaluation, affect, and satisfaction. However, they clearly position satisfaction as a consequence of positive and negative affect. They state: "[t]he notion that satisfaction, is, at least in part, an affective experience, is perhaps, best illustrated by two seemingly disparate manifestations: one's personal introspection and the fact that the adjective 'satisfied' is found in studies that assess pleasantness or other positive emotions ...." (p. 454).They go on to say: "[t]hus, affect is clearly an antecedent to, and necessary for, satisfaction" (p. 454). Oliver (1994) provides a summary of his work on satisfaction:

> Taken together, these investigations point to a consistent pattern of affective response in the satisfaction judgment. Apparently, attribute experience, in addition to having a direct effect on satisfaction, also drives the affective response the consumer has toward the product. Moreover, affective response appears to be well-specified by positive and negative affect *and* arousal which combine into states which describe more complex affects such as delight. This research stream, however, is tentative and would benefit from further corroboration and extension. (p. 17)

The controversy in the causal order of service quality and satisfaction has been presented as an issue which hinges on level of aggregation or whether the constructs are assessed at a global or encounter-specific level (Rust & Oliver, 1994; Taylor & Baker, 1994). If satisfaction is taken to represent the aggregate, service quality, satisfaction, and behavioral intentions are likely to be causally related in the following manner: *service quality at the encounter level -> global satisfaction -> behavioral intention* (see Cronin & Taylor, 1992; Oliver, 1993a; Taylor & Baker, 1994). A reversed sequence between satisfaction and service quality is presented in Bitner (1990) where service quality is specified as the aggregate. If we now attempt to produce a sequence based on the arguments above and try to include emotion or affect in this sequence by drawing on appraisal theories of emotion, the following general

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[93] Mano and Oliver (1993) investigated product-related satisfaction rather than service-related satisfaction. Expectancy disconfirmation is more closely associated to the evaluation of services rather than to that of products. Nevertheless, expectancy disconfirmation appears as one antecedent to the satisfaction response in Oliver (1993b) where it is proposed that consumers "form preconsumption expectancies" (p. 418).

causal sequence emerges: *Encounter Specific Service Quality (as appraisal)*[94] *-> Attribution -> Emotion -> Global Satisfaction -> Behavioral Intention*. Although less parsimonious, this sequence is partly based on the appraisal theory literature and partly on the service evaluation literature. It seems to resolve the inconsistency between the two literatures by including emotion in the sequence and this inclusion is entirely consistent with appraisal theories of emotion and especially that of Weiner (1985a, 1986). In addition, it is consistent with what is proposed in Westbrook (1987) as well as in Westbrook and Oliver (1991) in that dimensions of affect antecede or contribute to satisfaction. This sequence also points to the conceptual/theoretical validity of Cronin and Taylor's (1992) proposed sequence which holds that service quality at the encounter level antecedes global satisfaction.

If we presume that the causal directionality proposed in Cronin and Taylor (1992) holds in that it is a "true" causal relation, researchers still only provide a limited unidimensional grid of appraisal forms to explicate the semantic category of *satisfaction*. In other words, only expectancy disconfirmation as an appraisal form[95] has been proposed over service quality dimensions and over some other non-quality dimensions as an antecedent to satisfaction (see Oliver, 1993a, 1996). As such, a comparison to standards emerges as the dominant paradigm in satisfaction research (Iacobucci et al., 1994). Appraisal theory

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94 Unlike in Bitner (1990), the service quality assessment is seen here as synonymous with the notion of *appraisal* in cognitive theories of emotion. It is presented as an antecedent to attribution as proposed in Weiner (1985a, 1986). This suggests an increasing cognitive complexity in appraisal dimensions depending on the situation the consumer is faced with. Increased complexity can result in the use of attribution dimensions or other dimensions in judgments of a situation (see Scherer, 1988b). Three appraisal dimensions are usually used in attribution research (see D. Russell, 1982). The proposed general sequence is simplistic because of its linearity. Further specification would obviously be required. For instance, additional appraisal dimensions may be added based on Smith and Lazarus (1993) or Roseman (1991) or Scherer (1984a, b, 1993). In turn, this may potentially eliminate attribution in the proposed sequence and replace it for example with Lazarus' (1991a) concept of *core relational theme* as an antecedent to emotion.

95 The statement that only expectancy disconfirmation has been proposed as an appraisal form is correct if we do not consider equity judgments as appraisal forms. Equity theory is presented in its standard form in Oliver (1996). It thus emerges as a ratio-based comparison of inputs and outputs between the provider and consumer. On the other hand, if we include equity judgments as a form of appraisal, the grid becomes two-dimensional and still remains limited given the greater number of combined dimensions which are required across appraisal theories to give rise to a discrete emotion (see Scherer, 1988b).

researchers typically hold that a combination of appraisal forms is necessary to differentiate among ensuing emotional states or to generate a discrete emotional state (e.g., Smith & Ellsworth, 1985, 1987; Scherer, 1988b, 1993). Expectancy disconfirmation at the quality level is but one form of appraisal. Expectancy disconfirmation at the non-quality level is still the same form of appraisal but over different attributes of service. However, additional forms of appraisal are typically needed to induce a discrete emotional state as predicted by most if not all appraisal theorists. This has not been acknowledged by Oliver (1993a) who in his model of satisfaction and service quality clearly shows that satisfaction is a function of various forms of expectancy disconfirmation. By limiting the number of antecedent appraisal forms to one type or dimension (i.e., expectancy disconfirmation), it is doubtful that nothing more than a diffused affective state (pleasant or unpleasant) rather than a full-fledged emotion can be predicted from this process (see Smith & Ellsworth, 1987; Smith & Lazarus, 1993; Weiner, 1986). The explanatory power of such models is thus limited in addressing the consumers' affective reactions during service encounters. However, if we admit (a) the possibility that discrete emotional states can be observed during the service encounter; (b) that they are somehow determined by elements in the encounter; and (c) that multiple appraisal dimensions which perhaps potentially include expectancy disconfirmation are required to generate a discrete emotional state during the service encounter, then the following question comes to mind: What impact would these additional dimensions carry on the subsequent state of (dis)satisfaction?

The inclusion of additional appraisal dimensions and specific consequent categories of emotion can obviously broaden the analysis of the episode which is evaluated and clearly places the immediate response within the affective domain, and more precisely, within and among various discrete emotional states (Scherer, 1993) which can then partly determine (dis)satisfaction (Westbrook & Oliver, 1991). Moreover, it appears plausible that different appraisals may be carried out over the different dimensions of service quality. *Reliability*, the more technically-oriented dimension of SERVQUAL may for instance involve disconfirmation along with other dimensions of appraisal. However, *empathy*, a more interactional and social construct, may involve a completely different combination of

appraisals which may not include expectancy disconfirmation. Clearly, a broadening of our perspective on satisfaction is suggested. Overwhelming reliance on a single paradigm (i.e., comparison to standards in the form of expectancy disconfirmation) (Erevelles & Leavitt, 1992; Oliver, 1996) which in fact represents a single dimension of appraisal (see Scherer, 1988b; Scherer & Ceschi, 1997) imposes limitations at the conceptual and operational levels in attempts by marketing scholars to address satisfaction (cf. Arnould & Price, 1993). The consideration of the affective bases of satisfaction in Oliver (1996) and earlier in Westbrook (1987) as well as in Westbrook and Oliver (1991) clearly represent attempts to extend a perspective on satisfaction that is predominantly and essentially cognitive in nature. However, is seems that still more work is needed both at the conceptual level and empirical levels before a complete and consensual understanding emerges with respect to what constitutes satisfaction and its antecedents.

The appraisal theory perspective on emotion clearly provides a nomological framework which may be applied to service evaluation factors. The variety and number of appraisal dimensions which have been proposed by the many researchers involved (e.g., Lazarus, 1991a; Reisenzein & Hofmann, 1990; Reisenzein & Spielhofer, 1994; Roseman, 1984, 1991; Scherer, 1988b; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993) and the potential that these dimensions may involve processes that can range from conscious to unconscious evaluation (Arnold, 1960; Bowers, 1984; Gray, 1999; Lazarus, 1991a; Öhman, 1999) suggest that the current state of theory and research in the area of service evaluation is scant. This is further compounded by the notion that encounters may involve episodes of emotion and this possibility brings to play the dynamic nature of appraisals and consequent emotional states over the length of time of the encounter (Lazarus, 1991a; Scherer, 1993). Thus, a sequence of appraisals which is not necessarily based on or which includes expectancy disconfirmation[96] may be the rule rather than the exception in

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[96] Although expectancy disconfirmation is at the core of conceptual (e.g., Grönroos, 1990) and operational definitions of service quality (e.g., Parasuranam et al., 1985, 1988), it has been largely disconfirmed by a series of studies on service quality which include Cronin and Taylor (1992, 1994; see also Taylor, 1995). This suggests that other forms of appraisals may underlie the evaluation of service encounters and that these appraisal forms are many because combinations of appraisal dimensions rather than single dimensions are posited by appraisal theorists to result in discrete

service encounter settings. Although the debate on cognition and emotion remains largely unresolved (see Lazarus, 1999), the services marketing literature presents a different forum where this debate may be reignited and the role of cognition in the generation of discrete consumption emotions can be examined. Quite obviously, Lazarus has not yet risen to his full stature in the services marketing literature (see Lazarus, 1993).

Much more work is required before the issues surrounding the causal directionality between service quality and satisfaction are resolved. Perhaps a good starting point would be to determine if quality and non-quality appraisals are necessary and/or sufficient for an emotional response across service settings. If one closely reads through the current literature on service evaluation, the impression one is left with is that some form of appraisal, and specifically expectancy disconfirmation, is a necessary although not sufficient antecedent to a state labeled *satisfaction* (Oliver, 1989, 1993a, 1996). It appears conceptually necessary because Oliver (1993a) holds that expectancy disconfirmation may occur in quality and non-quality factors and places various forms of disconfirmation as direct antecedents to satisfaction. It is perhaps not sufficient because additional antecedents or concomitants are mentioned which include equity assessments, attribution, and emotion (see also Oliver, 1996; Mohr & Bitner, 1995b). Thus, the hypothesized relationship in Oliver's view is that expectancy disconfirmation is in some way necessary (for example see Oliver, 1993a, Figure 2). The question remains whether the true "relation" is a conceptual one or whether it is an empirical one. This question does not mean to imply that the relation is potentially trivial. What it does mean to imply however is that if it is only conceptual, this carries clear implications for future research and may involve reinterpretation of past and current findings.

Parkinson (1997) provides a table which he used to evaluate the current state of affairs in appraisal theory. In its original form, this table was by no means exhaustive. It has been modified and adapted here to suit the service evaluation literature and in particular Oliver's (1989, 1993a, 1996) proposed sequencing of expectancy disconfirmation and satisfaction. Table 7 not only provides criteria for assessing whether evidence is conceptual,

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emotional states. Some studies have reported that up to six independent appraisal dimensions may be required to differentiate among discrete emotional states (e.g., Smith & Ellsworth, 1985, 1987).

Table 7

The Possible Connections Between Appraisal and Satisfaction as an Affective Construct

	Consistency and Extent of Connection		
Level of Connection	Contingent	Necessary	Necessary and Sufficient
Conceptual	Satisfaction is sometimes represented partly in terms of expectancy disconfirmation	Satisfaction is necessarily represented partly in terms of expectancy disconfirmation	Satisfaction is necessarily represented purely in terms of expectancy disconfirmation
Empirical - Descriptive	Satisfaction is sometimes associated with expectancy disconfirmation	Satisfaction is always associated with expectancy disconfirmation	Satisfaction is entirely characterized by expectancy disconfirmation
Empirical - Causal	Satisfaction is sometimes caused by expectancy disconfirmation	Satisfaction is always caused by expectancy disconfirmation	Satisfaction is completely determined by expectancy disconfirmation

Source: Adapted from Parkinson (1997)

correlational, or causal, it also allows to specify whether the relation between expectancy disconfirmation as appraisal and satisfaction is contingent, necessary, or necessary and sufficient. The three categories imply three different levels of consistency with respect to a given relationship. When the research findings in service evaluation are assessed with respect to the criteria in Table 7, it would appear that the "true" nature of the evidence is in fact empirical and more specifically, correlational rather than causal. This is indicated by the ongoing and unresolved debate on the causal ordering of service quality and satisfaction (see Bitner, 1990; Iacobucci et al., 1994; Oliver, 1993a, 1994, 1996) and the evident lack of a preponderance of evidence indicating causality. Furthermore, Oliver (1993a) holds that very few studies have actually used expectancy disconfirmation over non-quality dimensions as an antecedent to satisfaction. Hence, as in the case of appraisal theories of emotion[97], the evidence appears more conceptual and correlational (i.e., descriptive) than causal (see Smith & Ellsworth, 1985). Additionally, it appears that from a conceptual perspective, the relation between expectancy disconfirmation and satisfaction is merely contingent because additional variables may further explain satisfaction with a service encounter. These supposedly include equity perceptions, attribution, and emotion (Oliver, 1996). Surely, other variables involved in the user-provider interaction (Swan & Bowers, 1998) such as those presumed to underlie impression formation processes (e.g., Hamilton & Sherman, 1996; Wiggins et al., 1988) and/or additional antecedent appraisal dimensions excluding expectancy disconfirmation (Scherer, 1988b) and/or emotional contagion can ultimately contribute to a state of (dis)satisfaction. Given the empirical evidence that mostly suggests a correlational relation between expectancy disconfirmation and satisfaction, this relation appears at best correlational and contingent. The theoretical link between the two variables is incapable of providing evidence for its causal hypothesis and the causal studies of this relationship are too few and too many inconsistencies are apparent in the literature to hold that this relationship is causal.

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97 Although a clear causal relationship is hypothesized between appraisal and emotion by all who have proposed an appraisal theory of emotion, Parkinson (1997) argues that the current evidence fails to demonstrate causality.

The appraisals (i.e., expectancy disconfirmations) which are presumed to underlie the SERVQUAL model of service quality (Parasuranam et al., 1988) and satisfaction (Oliver, 1996) are subject to the many criticisms which have been directed at the cognitive perspective on emotion. In particular, critics have "questioned the likelihood that elaborate cognitive evaluations are performed during the few milliseconds that seem sufficient to bring about an emotion episode" (Scherer, 1993, p. 326). Moreover, in his seminal article, Zajonc (1980) suggested that cognition is not a necessary condition for the triggering of emotional arousal. This position ignited a long debate between Zajonc and Lazarus on the nature of cognition (i.e., cognitive appraisals) and its role in emotion (see Lazarus, 1981, 1984a; Zajonc, 1980, 1984; see also Cornelius, 1996; Lazarus, 1999). Zajonc's observations put in question not only the nature of appraisal but also its role as a necessary and sufficient condition for emotion generation (see Lazarus, 1991a). "[C]omputation is the benchmark of the cognitive" (Scherer, 1993, p. 328). Given the expectancy disconfirmation nature of the framework which underlies SERVQUAL[98] and the number of dimensions in the SERVQUAL model, it is perhaps doubtful that the consumer of services engages in the type of mental calculus implied by the model over each of its dimensions. Accordingly, Swan and Bowers (1998) have criticized research on service quality and satisfaction and suggested that a major limitation of current approaches involves viewing customers as "attribute accountants" (p. 59). Furthermore, the fact that the performance-only measure SERVPERF which does not involve expectancy disconfirmation has emerged as just as good as or better than the more complex expectancy disconfirmation model (see Cronin & Taylor, 1992, 1994; Taylor, 1995) further points to this. Moreover, the empirical demonstrations of SERVQUAL as a valid and reliable measure does in no way imply that the actual evaluation of a service involves such levels of information processing as that implied by the model. This level of functioning is simply assumed at a conceptual and reflected at an operational level.

Because of the mental calculus which it posits, the SERVQUAL model clearly

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98 We concede that other models of service quality do not involve expectancy disconfirmation (see Taylor, 1995). However, we base our arguments on SERVQUAL because it remains the most used and commented measure of service quality.

suggests a controlled and intended (see Schneider et al., 1984; Kunda, 1999) and hence, a cortical or conscious (see Öhman, 1999) evaluation process. In fact, most of the competing models of service quality reviewed in Taylor (1995) also tend to suggest this. Nevertheless, some researchers in psychology have proposed and found that evaluation can occur in an unconscious manner (e.g., Arnold, 1960; Bowers, 1984; Öhman, 1999; Zajonc, 1980) and that this is mediated by subcortical structures such as the limbic system (Scherer, 1984a, b). Accordingly, LeDoux (1989) has demonstrated that subcortical or unconscious stimulus evaluation can occur in rats during affect eliciting tasks. Öhman (1999) discusses unconscious evaluation in a fair amount of detail. However, Scherer (1993) suggests that in humans, this process is difficult to ascertain because we ask subjects to recall or infer their appraisal of an event via self-report methodologies (i.e., rating scales associated to appraisal dimensions) and this necessarily involves "higher centres of the brain" (p. 328) and mediation of conscious information processing. He adds that the major problem of emotion-antecedent appraisal research rests on the use of verbal reports. In particular, he argues that "such recall or inference illustrates social representations of emotions rather than reflecting the actual emotion-eliciting [appraisal] process" (p. 328). This observation can clearly be extended to assessments of service quality as a cognitive construct and as a potential antecedent to emotion and a state of (dis)satisfaction in the service encounter. Finally, that different neural pathways have been identified in the generation of emotion (see Izard, 1993; LeDoux, 1989, 1995a, b, 1996) suggests that emotion can be triggered by a cognitive (conscious) pathway or by a more primitive (unconscious) system in the brain. The pathways are presented as partially independent of one another (Izard, 1993). This, in turn, implies that the hypothesized causal relationship in appraisal theories of emotion (i.e., cognition -> emotion) may not be the only mechanism to emotion and thus not a necessary antecedent to satisfaction in the service encounter. In fact, this potentiates a causal sequence which holds that social emotions displayed by the provider are the direct causes of consumer emotions or the contagion hypothesis.

8.5.2 A Reversal of the C-A-B Sequence Based on the Role of Pre-Attentive Processes in Emotion

The lack of consensual process orientation[99] in service evaluation research (e.g., Oliver, 1994; Taylor & Baker, 1994; Swan & Bowers, 1998) has been addressed by attempts which have associated two outcome variables - an appraisal-based cognitive construct labeled *service quality* and a affect-laden construct labeled *satisfaction*. In some cases, the relation between these constructs effectively mimics the causal chain implied in cognitive appraisal models of emotion (e.g., Cronin & Taylor, 1992; Oliver, 1993a, 1996). In others, this causal directionality has been questioned and a reversed sequence is proposed (e.g., Bitner, 1990; Mohr & Bitner 1995b). This latter sequence is consistent with findings which suggest that affect influences a variety of cognitive processes (see Forgas, 1991a, b, c, 1992, 1994, 1995, 1999; Isen, 1984, 1999). More generally, it is interesting to note that causal bidirectionality often characterizes relations which involve cognition and emotion and relations among components of emotion (Forgas, 1999; Parkinson, 1987; Zajonc, 1998; Zillmann, 1978). Moreover, many who are familiar with structural equation modeling know that if the entire causal sequence of an estimated model is reversed, the ensuing model will yield identical parameter and overall fit estimates. However, researchers have relied on LISREL and EQS to provide causal evidence with respect to service quality and satisfaction (e.g., Cronin & Taylor 1992).

The possibility that *emotional contagion* can operate as a direct and automatic determinant of the consumer's emotional state suggests that Lazarus may be buried soon after or before he has even risen in consumer behavior. Contagion is an automatic process that is based on the mimicry of nonverbal expressions of an actor and the consequent feedback from the observer's face, posture, etc. (Hatfield et al., 1992a, 1994). It represents a largely unconscious process in antecedent perception and potentially in its effects (emotion). Bowers (1984) distinguishes between *perceiving* and *noticing*. The more cognitivelly-laden and complex process is *noticing* because it requires directed and conscious attention and points

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[99] Swan and Bowers (1998) argue that a lack of process orientation is apparent in the antecedents of the two outcome variables (see Swan & Bowers, 1998). However, it is evident that this lack is also apparent between these constructs (see Cronin & Taylor, 1992; Oliver, 1994, 1996).

to more complex forms of information processing. On the other hand, merely *perceiving* appears to be pre-attentive (see also Öhman, 1999). The former is likely to involve greater levels of cognitive complexity than the latter. Moreover, there appear to be individual differences in the ability to infect others and in the capacity to be infected. Individual difference variables that may intervene in this process at an interactional level appear to involve at least two distinct categories of variables: (a) *expressivity* (e.g., Gross & John, 1995, 1997; Hatfield et al., 1994; Kring et al., 1994) and (b) *susceptibility to emotional contagion* (Doherty, 1997). When the actor can properly convey his affective state (McHugo et al., 1985) and when the observer is capable to decode the information (empathic accuracy), susceptible to contagion, and can use some form of self-perception to become aware of the feeling thus generated, this information becomes available for use within the observer in that the felt emotion reflects that of the actor. A mutual emotional state can thus very rapidly ensue after exposure to another. Mutual states of emotion are in fact commonly observed in interaction (Andersen & Guerrero, 1998; Oatley & Johnson-Laird, 1987). Although this process involves the potential for much variation at each stage, it represents a process that is direct and perhaps more plausible than the computations involved in the various appraisal perspectives on emotion.

That emotion can arise in a direct manner as suggested by contagion appears to profoundly limit the role of conscious cognitive factors as antecedents to emotion and consequently as antecedents to satisfaction. The emotional contagion process appears to enable an evaluation of the service where antecedent emotion may perhaps impact on a more reasoned evaluation of the acts of the provider (see Forgas, 1995, 1999; Isen, 1984, 1999). This would suggest a sequence whose causal order is reversed with respect to cognitive theories of emotion: *pre-attentive (unconscious) perception -> mimicry and feedback -> affect -> cognition* (see previous section). *Unconscious perception* refers to the simple pre-attentive perception of provider displays and is not taken to constitute cognition (see Zajonc, 1980, 1984). *Affect* is the resultant state of contagion which then impacts on for instance appraisals of the encounter or other cognitive functions (for examples of how affect can impact cognition, see Forgas, 1995, 1999; Isen, 1984, 1999). Emotion thus generated can

also impact satisfaction without cognitive involvement. This perspective is not in opposition with the stance adopted in Westbrook and Oliver (1991; see also Westbrook, 1987). In general, it appears that how emotion is generated in the service encounter potentiates two different sequences of interrelations among cognition, affect, and behavior.

Given that cognition becomes less important in somatic perspectives on emotion, it is tempting to posit that if emotion is generated in the consumer via primitive emotional contagion, service quality judgements may not even occur. Rather, a direct link between consumer emotion and satisfaction appears warranted in these circumstances. Conceptually, this proposition is in agreement with the work on affect and satisfaction reported in Westbrook and Oliver (1991). This sequence would appear appropriate in situations that are "uneventful" or where no failure in the delivery of service occurs. Such situations do not call for an increased level of cognitive complexity directed at understanding the reasons for the event (see Weiner, 1985a, 1986) or at assessing the goal-congruity of the event (see Lazarus, 1991a).

An alternate or concurrent form of evaluation of the interactional aspect of the service encounter rests in person perception. This evaluation is however constrained to the functional and interpersonal aspects of service delivery. That the provider as a person is evaluated is implicitly acknowledged in many of the dimensions which make up service quality models (e.g., assurance, empathy, etc.) and discussions of factors uncovered in critical incident research (see Bitner et al., 1990, 1994). In the impression formation paradigms reviewed in the previous chapter, the evaluative process does not necessarily culminate in expectancy disconfirmation but rather in dispositional attribution (Fiske & Taylor, 1984). Thus, impression formation also provides an alternate process for evaluation which is not necessarily dependent on expectancies but rather on the attribution of general dispositions and specific personality factors which, in the interpersonal domain, underlie two of the five factors of personality; namely, *extraversion* and *agreeableness* (see Wiggins & Pincus, 1992; Wiggins & Trapnell, 1996). Taking a perspective on the consumer as a naive scientist (Heider, 1958) may facilitate an understanding of how the provider is evaluated and this may differ greatly from the expectancy disconfirmation paradigms proposed in the literature

which seems to be more and more disconfirmed in empirical studies (see Cronin & Taylor, 1992, 1994; Taylor, 1995). Moreover, affect and personality are closely associated. Plutchik (1997) holds that "[e]motions are related to a number of derivative conceptual domains" (p. 30) which include personality. This is evidenced by: (a) an overlap in language between the domain of emotion and that of personality; (b) the functional significance of emotions and traits; and (c) both emotion and personality labels/terms can be arranged in a circumplex. This may indicate that in service evaluation, the consumer's emotions and dispositions may constitute two correlated yet distinct categories of antecedent factors to satisfaction.

8.5.3 Postulating Prototypical Forms of Satisfaction is Far-Fetched

Emotion is usually indexed with a label and emotion labels are semantic categories taken to represent emotional categories. Many semantic categories described by emotion labels are potential consequences of an appraisal process based on a combination of appraisal dimensions (e.g., Lazarus, 1991a; Scherer, 1993, 1997, 1999). However, states may ensue from evaluation for which a label is not available in the affective lexicon of a language or has not been provided in the questionnaire that is administered to subjects (Russell, 1993). Scherer (1984b, 1992, 1993) suggested that an event can elicit a variety of emotional states which do not necessarily correspond to basic emotions and that these states are in all likelihood more numerous than the number of proposed basic emotions (e.g., Ekman, 1984, 1992, a, b, c; Izard, 1972, 1977). Specifically, the potential number of emotional states has been related to the number of distinct appraisal combinations. Accordingly, Scherer (1993) states that: "the stimulus or event evaluation process can elicit as many different emotional states as there are distinguishable outcomes of the appraisal process" (p. 329).

Oliver (1989) (see also Westbrook & Oliver, 1991) has suggested that there are many forms, modes, or prototypes of satisfaction. The analysis of antecedent factors to satisfaction in Westbrook and Oliver (1991) was based on dimensions underlying emotion which were extracted factorially from Izard's (1977) DES-II scale. In the cognitive perspective on emotion, greater cognitive complexity via dimensions of appraisal leads to an increased differentiation among resulting affective states (e.g., Lazarus, 1991a; Weiner, 1985a, 1986). Smith and Ellsworth (1987) provide an argument which holds that additional dimensions to

those proposed in Russell (1979, 1980) may be needed to further specify and differentiate one emotional state from another in the circumplex model. It seems plausible that by further specifying antecedent appraisal dimensions in the service evaluation context, this would lead to a greater specification of the different types of satisfaction suggested in Oliver (1989) and Westbrook and Oliver (1991); and this, under the assumption that they are somehow related and that cognition is associated to these forms. Hence, it is possible that *satisfaction* could achieve greater affective status with greater specification of its cognitive antecedents as suggested by appraisal theories of emotion.

Westbrook and Oliver (1991) refer to a *hot* variety and a *cool* variety of satisfaction and suggest that different prototypes of satisfaction are perhaps foreseeable. In the field of emotion, the notion of *prototype* is somewhat associated to that of *basic emotion* (Metts & Bowers, 1994). However, prototype theories of emotion typically associate a sequence of particular cognitions and behaviors to particular fundamental or prototypical emotions (e.g., Plutchik, 1984). In this perspective, emotion is discussed in an episodic manner or in the context of unraveled emotion scripts (e.g., Fischer, 1991; Shaver et al., 1987). Oliver (1989) has proposed that *contentment*, *pleasure*, *relief*, *novelty*, and *surprise* represent five different modes or prototypes of satisfaction. Recent investigations (see Oliver, 1996) have found that this number may in fact be too high and that a more parsimonious structure is suggested. It is clear from Oliver's (1989) rationale that he proposes an ambiguous shift from cognitive theory representations to more somatic-oriented perspectives on satisfaction. Basic emotions represent a small number of emotion categories which may be seen as unitary complexes that are distinguishable from one another (Ekman, 1994; Izard, 1972, 1977, 1994); and each may involve different neurophysiological systems (see Izard, 1977; Öhman, 1999). This view is different from a dimensional perspective on emotion which has basically sought to demonstrate relations among emotions (e.g., Russell, 1979, 1980).

It is doubtful that satisfaction involves multiple forms which are prototypical[100]

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[100] Given the many problems that have emerged with the notion of *basic emotions* (e.g., Ellsworth 1991; Ortony & Turner, 1990), it is doubtful and even perhaps fruitless to engage in such an endeavor. This problem is further compounded by the fact that to our knowledge, the English language does not provide semantic categories which further delineate various forms of experienced satisfaction from

because it is nowhere listed as a basic or prototypical emotion. Consequently, it is also doubtful that the different types of satisfaction which were observed by Oliver (1989) involve different systems in the brain as suggested for some basic emotions (e.g., Öhman, 1999). Ekman and Friesen (1975), Tomkins (1963), as well as Oatley & Johnson-Laird (1987), have suggested that non-basic emotions are combinations, blends, or mixes of basic emotions. This view is also apparent in Plutchik's earlier work (see Plutchik, 1962). Scherer (1984a) has referred to this type of categorization as *palette theory*. It is perhaps more likely that (dis)satisfaction is a non-specific blend of affective states whereby dissatisfaction forms may be based on one or more negative basic emotions (e.g., disgust, anger, sadness, contempt, etc.) and satisfaction forms, on the positive emotion joy/happiness and its offshoots (e.g., delight, elation, etc.). It is arguably non-specific and variable in that different blends of affective states are likely in some situations and not in others. On the other hand, some have found that categorizations based on some set of basic emotions were rather trivial in terms of explaining other non-basic emotions (e.g., Ortony & Turner, 1990). Similarly, Zajonc (1998) suggests that: "in all probability, emotion terms are not amenable to a systematic analysis found useful for color terms" (p. 608). Accordingly, Fridja et al. (1989) empirically demonstrated that the more complex emotions such as jealousy, regret, and disappointment were not "cognitively complex specifications of particular basic ones" (p. 225) in that they involved mostly no action-readiness patterns whereas the more "basic" emotions tended to be determined by specific patterns of action-readiness. Furthermore, there are emotions whose nature is a social one. *Embarrassment* is a good example (see Miller & Leary, 1992; Leary, 1983). It is difficult to conceive of embarrassment occurring during or after the solitary consumption of a tangible good. In consumption contexts, it therefore represents an

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the general categories of *satisfaction* and *dissatisfaction*. In the case of the so-called basic emotions, language provides clear categorical distinctions (cf. joy vs. anger). Moreover, differences have been posited among basic emotions not only with respect to the subjective or phenomenological aspect of each category but also with respect to each category's objective response concomitants such as expressive behavior, action readiness, etc. (see Fridja, 1986, 1987, 1988; Izard, 1977, 1991). Thus, the problem with prototypes of satisfaction appears even more acute than those associated with the notion of *basic* or *fundamental emotions*: we do not even appear to have meaningful or non-arbitrary names for them. A dimensional approach is therefore perhaps better suited to describe interrelations among potentially varying states of satisfaction and between satisfaction and other affective states.

emotion that appears contained to service encounters. However, Oliver (1989) does not account for its impact or of that of other social emotions in his affect-laden treatment of satisfaction.

Perhaps one can infer the affective content of satisfaction and dissatisfaction by working backwards. Thus, one could attempt to identify the forms of action tendency that are related to satisfaction and dissatisfaction and from thereon, infer from a model such as Fridja's (1986, 1987; Fridja et al., 1989) which emotions may underlie the construct. Moreover, that satisfaction may involve a blend of positive emotions whereas dissatisfaction may be related to a blend of negative emotions puts in question the way satisfaction is typically measured. A reliance on bipolar scales appears to be the rule in the literature (e.g., Cronin & Taylor, 1992). These scales oppose *satisfaction* to *dissatisfaction* (or *unsatisfaction*). In the case of Oliver's (1989) prototypical perspective, this then is analogous to stating that *anger* (or *sadness* or *disgust*) is the opposite of *happiness* or *joy*. A more coherent form of measurement rests perhaps in the use of separate measures of each construct.

Alternatively, that evaluation involves cognitive and affective components implies that satisfaction is itself perhaps multidimensional and that cognitive and noncognitive factors may contribute to it differentially (Westbrook & Oliver, 1991). It may also suggest that the *hot* variety of satisfaction may be more closely associated to the affective pathway in the brain whereas the *cold* variety to the cognitive pathway (see Izard, 1993; LeDoux, 1989). The pathways are viewed as rather independent (LeDoux, 1989, 1995a, b) and thus imply different determinants. In acknowledging the cognitive content of satisfaction and dissatisfaction, one may then try to establish the cognitive appraisals which are closely associated to these outcomes. It is argued herein that expectancy disconfirmation is not the only form of appraisal that may result in satisfaction.

8.5.4 Some Final Thoughts on Emotion and Service Evaluation Factors

Given the domination of cognitive explanation in the services evaluation literature, it is not surprising that affect was treated in consumer behavior much in the same way as it was by cognitive psychologists: it was perceived as "an embarrassment" and "usually left out

in the cold" (Gray, 1999, p. 84). This is confirmed in Cohen and Areni (1991) where it is stated that: "[a]ffect has frequently been assigned a subordinate role - for example, as a functional aspect of goal-directed behavior and performance feedback (hence blended into conation) or as a component of evaluation (hence blended into cognition)" (p. 189). They add that: "[o]ften it was simply ignored or its disruptive influence on more orderly cognitive influence minimized" (p. 189). Similarly, motivational issues have only been scarcely addressed in the services marketing literature. The importance and role of motives (needs) and desires is barely apparent in the services marketing literature (Oliver, 1996). The basic triad of emotion-cognition-motivation in psychology (or the tripartite conceptualization of mind) has therefore not been addressed as such in the services evaluation literature. Moreover, the treatment of the triad's components in this area has obviously involved reductionism and encapsulation. In turn, such an epistemological approach generally results in inevitable distortions in research of "natural" processes (Dewey & Bentley, 1989) and in subsequent attempts at relating categories of objects in some causal sequence (Lazarus, 1993, 1999; Shweder, 1993; Sigel, 1986). This is quite obvious in the services marketing literature where the issue of whether service quality or satisfaction comes first still awaits resolution (Bitner & Hubbert, 1994; Oliver, 1996).

Moreover, it appears that although the semantic categories of *emotion, cognition,* and *motivation* are presented as separate entities of human functioning, they however seem somewhat inseparable or fused not only based on observations gathered at the level of psychological inquiry (e.g., Bruner, 1986; Santostefano, 1986; Scheff, 1985) but also at the neurobiological and neurophysiological levels of functioning (see Izard, 1992, 1993; LeDoux, 1989, 1995a; Plutchik, 1991). These semantic categories do not exist in nature but are constructed by us who also "define their parameters, and strive to discover legitimate instances representing the categories" (Sigel, 1986, p. 214). Findings by various researchers outside the area of marketing point to the naiveté which underlies current research in service evaluation. For instance, Leventhal and Scherer (1987) reported that it was very difficult to identify incidences of cognition-free emotion and emotion-free cognition. Similarly, Sigel (1986) asks: "Is there a pure affective category - that is, a category with no indication of

cognitive awareness? Is there a category of pure cognition?" (p. 214). He adds that: "[i]t all depends on whom one asks and what criteria and definitions are used as bases for seeking answers" (p. 214). Others have put in question the presumed causal order of cognition and emotion and have clearly adopted a stance that does not propose that affect and cognition are involved in some causal sequence (Bruner, 1986; Izard, 1993; Scheff, 1985). In fact, bidirectionality has been repeatedly observed between the two processes (see Forgas, 1999; Parkinson, 1987; Zajonc, 1998). Accordingly, Sorrentino and Higgins (1986) have proposed that it is impossible to separate the study of *hot affective* and *cold cognitive* processes. Instead, they suggest that the focus be on a *warm look* or a blending of the two that acknowledges that affect and cognition operate in parallel and in a mutually influential manner. This acknowledgment should be seriously considered in future investigations of service evaluation. It invites an effort to look back at how psychological, biological, neural, and physiological systems exist in nature rather than a look forward which is inevitably based on existing knowledge in the area which, in turn, is based on ill-defined[101] and encapsulated categories. Just as with the relation between cognition and emotion, the link between quality and satisfaction remains to say the least, obscure.

Emotion is typically taken to require a specific referent (Cohen & Areni, 1991). In the service evaluation literature, the referent may be the provider, an event, or a series of occurrences during service delivery. The categories of referents are many and can be taken to include any evaluation factor identified in the literature such as quality dimensions (Grönroos, 1982, 1990, Parasuranam et al., 1985, 1988, 1991), outcome and process factors (Grönroos, 1982, 1990), more specific service provider behaviors such as *effort* (Mohr & Bitner, 1995a, b), *personalization* (Surprenant & Solomon, 1987), *emotional labor*

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[101] Categories such as *satisfaction* and *service quality* have been attributed varying levels of affective and cognitive content (see Oliver, 1994). This lack of consensus allows one to hold that they are currently and generally poorly defined (see also Cronin & Taylor, 1994). More generally, Cohen and Areni (1991) hold that the role affect has either been ignored or minimized in comparison to that of cognition in psychology and in the area of consumer behavior. They further hold that the subordinate role of affect is generally made apparent in that it has typically been blended into conation and cognition. In the services evaluation literature, the view of satisfaction as a form of *evaluation* clearly points to a blend of affect and cognition in which affect has been given an ambiguous and subordinate role.

(Hochschild,1983a), etc. This compartmentalization facilitates diagnostics however it deviates from the more basic evaluation processes discussed in psychology such as person perception. A third phase of research in service evaluation (see Grönroos, 1993; Lapierre et al., 1996) should not only focus on the dynamic nature of cognitive evaluation (see Scherer, 1993) but should also attempt to identify the specific and multiple categories of referents that are likely to be involved in the evaluation of various types of services (these categories are likely to change from one type of service to another). In addition, an exploration is warranted of the specific forms or patterns of appraisals that may be triggered by each category of referent during service evaluation and which consequently may result in emotion which, in turn, may then contribute to a state of (dis)satisfaction. Also, future research should look at more direct ways by which emotion is generated such as emotional contagion and how this state impacts on concurrent or subsequent cognitive appraisals. This would invariably lead to more complete and more complex frameworks of service evaluation and may further specify the intrapersonal resultant state that has been labeled *satisfaction*. Alternatively, this may also lead to a perspective on satisfaction which downplays its *evaluative state* status and suggests a more process-oriented perspective (see Tse et al., 1990).

The directions the service evaluation literature has embarked upon involve tunnel vision which is compounded by conceptual confounds and an often blatant disregard for more basic psychological processes such as impression formation[102] (e.g., Hamilton & Sherman, 1996; Snyder, 1979; Wyer & Gordon, 1984) or pre-attentive (nonconscious) processes (Bargh, 1989, 1992; Öhman, 1999). Moreover, this direction has not been open to and does not provide the simple acknowledgment that additional appraisal dimensions other than expectancy disconfirmation, may be needed to account for resulting affective states in the service encounter; that is, if we presume that appraisal theories of emotion are valid representations of the determinants of affective states. A reliance on *expectancy*

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[102] Among the many attributes of service which have been proposed in service quality models, few can serve in the generation of an impression formation paradigm regarding the provider (viz. Parasuranam et al., 1988). Nevertheless, the resulting impression (e.g., positive or negative) also constitutes an evaluation. Thus, the most basic social psychological processes are avoided and replaced by complex and often confounded evaluation schemes in the mainstream services literature.

disconfirmation or a *comparison to standards* as an explanatory framework for satisfaction has clearly resulted in a snowball effect where researchers have maintained and have continually reinforced the status of this appraisal dimension as a primordial determinant of satisfaction at the conceptual level. In fact, the notion of expectation has played a very important role in conceptualizations of buyer behavior (van Raaij, 1991). This, in turn, has resulted in impeding other conceptualizations which are perhaps less cognitively-oriented but are also more valid given alternate perspectives on emotion and cognition in psychology. Moreover, it does seem that satisfaction is a victim of a wider debate which has gone on in psychology for more than two decades. The cognition-emotion debate (see Lazarus, 1981, 1984a, b; Zajonc, 1980, 1984) is not resolved. However, it seems that is has brought us to the realization that cognition, emotion, and motivation are fused or inseparable and that the labels we impose on different phenomena result in a compartmentalization that is not reflected in nature (see Lazarus, 1999). This realization in the area of marketing, when it occurs, may serve to introduce different approaches to the study of the bases of satisfaction which may turn out to include not only cognitive and affective components but also motivational ones.

CHAPTER 9

STUDY RATIONALE AND HYPOTHESES

The model of the *emotion system of the service encounter* is presented in Figure 9 and discussed fully in Section 6.4. This model suggests a variety of relationships between service providers' emotional displays and the consumer emotion process. Not all can be tested empirically and many are beyond the scope of this dissertation. Our primary focus is on the consumer and more specifically, on the effects of service providers' emotional displays on the consumer. Although three mechanisms are proposed which can induce an emotional reaction in the consumer, we limit our analysis to emotional contagion and cognitive appraisal. Next, the role of emotional displays in impression formation is investigated. Finally, we theorize about the role of emotional labor in service evaluation and then look into how consumer emotions impact this evaluation. Latent variable models are developed. Each simultaneously takes into consideration some of the previously stated hypotheses.

9.1 The Normative Nature or Appropriateness of Service Providers' Emotional Displays

Service encounters are inherently social encounters (Czepiel,1990a). Some studies of social encounters have stressed the important role of emotion during interaction (Andersen & Guerrero, 1998; Hochschild, 1983a; Metts & Bowers, 1994; Zajonc, 1998). During interaction, the regulation of emotion appears primordial (Averill, 1980a, b, c; 1982; Goleman, 1995; Izard, 1990; Saarni, 1989, 1993; Scherer, 1982; Scherer, Summerfield, & Wallbott, 1983). For instance, Scherer et al. (1983) state that: "in the field of the social psychology of aggression and conflict it is often stressed that a lack of regulation of the emotion appearing in the course of an interaction can easily lead to aggressive behavior and to the stirring up of conflicts ..." (p. 360). Sociocultural, occupational, and organizational norms (Hochschild, 1983a; Parkinson, 1991; Rafaeli & Sutton, 1987) govern how emotions are to be displayed by service providers. Hence, the service encounter emerges as a setting in which a provider is expected to regulate emotions. Varying levels of cognitive involvement in regulation have been proposed. For instance, Averill's (1980a, b, c, 1982) perspective is highly cognitive in content and thus points to controlled cognitive processing

in regulation. On the other hand, Hochschild's (1979, 1983a) position on this issue appears more ambivalent and suggests that regulation can sometimes occur in a somewhat unconscious and automatic fashion.

In her interdisciplinary approach, Hochschild (1983a) stressed the social nature of emotion and offered a perspective which holds that: (a) emotions can be felt rather than simply displayed and (b) the internal feeling component of emotion can be managed by the service provider. In doing so, she formalized an *interactional theory of emotion* that deviates from purist psychological and purist sociological accounts while incorporating certain aspects from these perspectives. Hochschild (1983a) defined *emotional labor* as "the management of feeling to create a publicly observable facial and bodily display" (p. 7). In this perspective, emotion management involves a focus on the internal feeling state component and its regulation based on *feeling rules* which are "norms that specify the range, intensity, duration, and object of emotions that should be experienced" (Ashforth & Humphrey, 1993, p. 89). Feeling rules have also been described as expectations about how one should feel in social situations (Wilson & Klaaren, 1992). If no discrepancy or gap between the actual feeling state and a feeling rule is sensed by the provider, then spontaneous and genuine expressions of emotion are conveyed (Hochschild, 1979, 1983a; Kemper, 1991). On the other hand, a discrepancy usually involves compliance with expression norms which results in emotional labor via *surface acting* or *deep acting*. Non-compliance with norms in that no regulation is engaged in leads to *affective* or *emotional deviance* or the expression of non-normative emotion (Goffman, 1967, 1974; Hochschild, 1983a; Thoits, 1985, 1990).

In Hochschild's (1983a) perspective, internal feeling states and emotional expressions are closely linked. Regulation of the internal feeling state component of emotion appears to be more or less automatically reflected in overt displays of emotion. A one-to-one correspondence is therefore presumed between these components of emotion. However, research in psychology points to internal feeling states and expressions as distinct aspects of an emotional response (Leventhal & Scherer, 1987; Öhman, 1986; Parrott & Hertel, 1999). An alternative to Hochschild's (1986) perspective on emotion in the service encounter has emerged which provides a more sociologically-grounded view. Its level of discourse is rooted

in the impression management perspective and thus makes no assumption about emotion being felt. This perspective is closely related to that of Goffman (1959, 1967) and clearly holds that emotions are simply acted out socially (e.g., Zurcher, 1982, 1985). This alternate perspective on emotion in the service encounter has provided a focus on the observable behavioral-expressive component of emotion and is especially apparent in the work of Rafaeli and Sutton where attention is placed on various *display rules* rather than on *feeling rules* (e.g., Rafaeli & Sutton, 1989). Accordingly, many researchers have argued that *display rules* specifically refer to readily discernable behaviors rather than to internal states. Consequently, the term *emotional labor* has been repositioned as simply the display of appropriate emotions by service agents during service encounters (see Ashforth & Humphrey, 1993).

Hochschild (1983a) stressed the widespread occurrence of and demand for emotional labor. She states that: "[e]motional labor does not observe conventional distinctions between types of jobs. By my estimate, roughly one-third of American workers today have jobs that subject them to substantial demands for emotional labor" (p. 11). Since Hochschild's (1983a) seminal work, a plethora of studies has emerged on emotional labor or the strategic use of emotion on the job. The types of services which have been examined are quite numerous but usually involve high levels of contact between service provider and client or customer. Many studies have been done in the context of medical and related occupations (e.g., Clark & LaBeff, 1982; Daniels, 1960; Frankel, 1995; Hearn, 1987; James, 1989; Marteau, 1989; Semmes, 1991; Smith & Kleinman, 1989; Tannen & Wallat, 1987; Wharton, 1993). Some have focused on police officers and detectives (e.g., Pogrebin & Poole, 1995; Stenross & Kleinman, 1989). Others have investigated strippers (e.g., Enck & Preston, 1988; Peretti & O'Connor, 1989), bill collectors (e.g., Sutton, 1991), bank clerks (e.g., Wharton, 1993), waiters (e.g., Mars & Nicod, 1984; Rind & Bordia, 1995), store clerks (e.g., Rafaeli, 1989a; Sutton & Rafaeli, 1988; Tolich, 1993), hairdressers (e.g., Earys, 1993; Parkinson, 1991), cashiers (e.g., Rafaeli, 1989b), and undertakers (e.g., Hyland & Morse, 1995). These studies generally indicate that many service occupations require the expression and/or suppression of certain types of emotions as part of the work role (Ashforth & Humphrey, 1993).

The valence of prescribed emotional expression on the job appears to generally vary by type of occupation. For instance, Hochschild (1983a) has reported that bill collectors were expected to convey anger whereas flight attendants were expected to behave in a friendly and cheerful manner. Accordingly, she argues that:

> [w]hen an organization seeks to create demand for a service and then deliver it, it uses the smile and the soft questioning voice. Behind this delivery display, the organization's worker is asked to feel sympathy, trust, and good will. On the other hand, when the organization seeks to collect money for what it has sold, its worker may be asked to use grimace and the raised voice command. Behind this collection display the worker is asked to feel distrust and sometimes positive bad will. (p. 137)

Parkinson (1991) has suggested that, in general, service providers are expected to conceal their negative emotions behind a positive facial expression and poised composure. That the role of service provider in many occupations typically involves the expression of positive rather than negative emotions is made apparent within many studies (e.g., Kelley & Hoffman, 1997; Parkinson, 1991; Schneider & Bowen, 1985; Tidd & Lockard, 1978). Organizations usually expect that their employees will manifest good cheer toward customers. For instance, Sutton and Rafaeli (1988) report that examples of organizations where customers await positive emotional displays from employees include Nordstrom's, Disneyworld, Delta Airlines, and McDonald's.

Nevertheless, the valence of a displayed emotion is clearly not the only determining factor of whether an emotion is deemed appropriate, expected, or normative by an observer. Considerations of social context are also involved (Kemper, 1991, 1993). Accordingly, Rafaeli and Sutton (1987, 1989, 1991; see also Rafaeli, 1993) proposed that (a) *the content of behavior* and (b) *the impact of behavior on a target person* are the two main dimensions which should be taken into account when considering emotional displays on the part of service providers. The *content* dimension involves the distinction between positive (pleasant) and negative (unpleasant) behaviors. Hence, it clearly represents the valence of the display. Generally, the valence dimension has emerged as one of fundamental import to emotion in dimensional studies (e.g., Bush, 1973; Davitz, 1969; Ekman, Friesen, & Ellsworth, 1972; Feldman, 1995; Izard, 1972; Kring & Sloan, 1991; Kring & Tomarken, 1993; Mayer & Gaschke, 1988; Mehrabian & Russell, 1974a, b; Osgood, 1969; Russell, 1979, 1980; Russell

& Carroll, 1999a, b; Russell & Mehrabian, 1977; Russell & Pratt, 1980; Schlosberg, 1954; Solomon, 1954; Tucker, 1955; Watson & Tellegen, 1985; Wundt, 1905). Dimensional studies have typically sought to reveal interrelations among various emotional states and have been conducted from a psychological perspective. This perspective generally portrays emotion as a personal (private) and internal occurrence (see Miller & Leary, 1992; Parkinson, 1996; Zajonc, 1998). One common underlying theme in classic theories of emotion within psychology has been that expressions of emotion occur, to some extent, independently of normative constraints and notwithstanding the approval and disapproval of others (Graham et al., 1981). Consequently, dimensional studies in psychology have typically ignored contextual factors whose importance in the regulation of emotion has been emphasized by sociologists (see Scherer, 1982a).

Impact, the second dimension, involves the notion of context and is closely associated with the goals and norms that underlie the expression of emotion on the part of the employee in a particular occupation and across situations (Rafaeli, 1993; Rafaeli & Sutton, 1987, 1989, 1991). Accordingly, Rafaeli (1993) suggests that an emotion that is pleasant or unpleasant for the service provider may not be classified necessarily as positive or negative by the consumer with respect to his/her goals and expectations. *Impact* or some analogue does not emerge as a secondary or tertiary dimension of emotion in the psychological studies mentioned above which unilaterally point to *valence* as the most important dimension of emotion and to *arousal* or its analogue *intensity* as a secondary dimension.

Instead, this dimension is clearly rooted in cultural analysis which, in turn, represents one of three major sociological perspectives on emotion (see Kemper, 1991, 1993). Emotions are not viewed by sociologists as "things in themselves" (see Doyle McCarthy, 1989, p. 51) or as necessarily guided by internal forces (Kemper, 1984, 1991) as suggested by positivist psychologists; and consequently, by researchers in marketing who have usually adopted a psychological perspective on emotion (e.g., Bagozzi et al., 1999; Havlena & Holbrook, 1986; Holbrook & Batra, 1987a, b; Mano & Oliver, 1993; Richins, 1997; Westbrook, 1987). This social perspective on emotion also underlies the constructivist view which points to emotions as things that are defined, specified, observed, and comprehended as social occurrences or

within a sociocultural context (see Averill, 1980a, b, c; Gordon, 1981; Mandler, 1992). As such, the *impact* dimension evidently brings into play a consideration of social factors in emotional expression. In other words, this dimension reflects the notion that emotions are social or interpersonal (Miller & Leary, 1992; Parkinson, 1996; Zajonc, 1998) rather than private or intrapersonal phenomena.

The importance of social context considerations in the regulation of emotion is stressed throughout much of the sociological literature on emotion. This assertion is in no way recent. In fact, it appears in ancient writings on social behavior and etiquette. For instance, Aristotle (1941) emphasized the importance of showing appropriate emotions in an appropriate manner in appropriate situations. If one does not, Aristotle (1941) held that one would be treated as a fool and seen as socially inept or unskilled. An example which reveals the importance of this dimension is the expression of a negative emotion such as sadness by the provider as a form of social support after the client has related an experienced trauma. The emotion is negative but will in all likelihood carry a positive impact (see Rafaeli, 1993). On the other hand, expressions of good cheer when one is announcing to a patient that s/he is seriously ill would in all likelihood carry a negative impact on the patient and be judged inappropriate or non-normative.

At a broad level of analysis, applicable norms vary from occupation to occupation and from organization to organization. At a narrower level, norms may change from situation to situation or from frame to frame during interaction (Goffman; 1959, 1967, 1974; Hochschild, 1979, 1983a). The expected valence of a display is therefore not simply prescribed by a set of occupational or organizational norms but also by normative factors which may suggest momentary changes in expressed emotion over the temporal progression of an interaction. Hence, the situational variability of Rafaeli's (1993) notion of *context* appears related to that of *transaction defining cues* (e.g., crowding; temperature; waiting line queues; sex, status, and dress of the customer; etc.). Rafaeli and Sutton (1988, 1989) suggest that these cues indicate to the provider the type of transaction that is about to ensue and partly shape his/her behaviors (see also Ashforth & Humphrey, 1993; Mars & Nicod, 1984; Rafaeli, 1993; Tansik, 1985). They also have an effect on customers who adjust their

expectations to the situation accordingly. For instance, Sutton and Rafaeli (1988) reported that different expectations or norms in customers were apparent in busy vs. slow stores. Specifically, they found that positive emotional displays were expected by customers in stores when crowding was not apparent and the waiting lines were short. On the other hand, when the stores were busy, observations suggested that a tacit agreement emerged between customers and employees in that neutral and fast-paced interactions were engaged in so that transactions could proceed in a more accommodating manner.

In psychology, most empirical work on social expressions of emotion is fairly recent. However, recent findings clearly point to the importance of the interpersonal or social context in which the expression is delivered or perceived (e.g., Buck, 1991a; Fridlund et al., 1990, 1992; Hess et al., 1995; Hoover-Dempsey, Plas, & Strudler Wallston, 1986; Jakobs et al., 1997; Labott, Martin, Eason, & Berkey, 1991; Manstead, 1991; Parkinson, 1995; Plas & Hoover-Dempsey, 1988; Way & Masters, 1996). These studies reinforce the notion that sociality underlies emotional expression and consequently point to the inadequacy of a purely Darwinian perspective which suggests that expressions of emotion represent spontaneous reflections of internal states (see Jones et al., 1991) and occur irrespective of social context considerations (see Graham et al., 1981).

The Darwinian perspective is generally exemplified by the work of Ekman (1971, 1977, 1982, 1992a, b, c, 1993, 1994) and Izard (1972, 1977, 1994). For instance, Ekman (1971, 1977) referred to the physiological factors which trigger the expression of basic emotions as the *facial affect program* thus suggesting its biological and physiological bases. Similarly, Izard (1972) proposed that an emotion "is a complex process that has neurophysiological, motor-expressive, and phenomenological aspects" (p. 51). He adds that each basic emotion has its own innate program, whose neurochemical activity "produces patterned neuromuscular responses of the face and body and the feedback from these responses is transformed into conscious form" (p. 52).

The Darwinian perspective holds that expressions of emotion and their recognition should be universal. Generally, the studies which suggest universality further reinforce the notion that basic or fundamental emotional states are evolved phenomena (Ekman, 1984) that

are expressed through pre-wired sub-cortical channels and do not involve cognition (e.g., Frank et al., 1993; Ekman, 1992b; Izard, 1977). Hence, this perspective clearly points to emotion as a bottom-up process. Like studies which point to sociality considerations in the expression of emotion, studies which discount the universality of emotional expression (see Russell, 1994, 1995; Markham & Wang, 1996; Mesquita & Fridja, 1992; Scherer & Wallbott, 1994) also point to inadequacies in the Darwinian perspective on emotion in that they stress the cross-cultural (situational) malleability of emotion. In fact, the notion of *display rules* was introduced by Ekman and Friesen (1969b) to account for divergent findings presented by researchers who argued in favor of sociocultural determinants in emotional expression and also for some discrepant findings uncovered by universalists. Ekman and Friesen (1969b) presented a neuro-cultural theory of emotional expression which attempted to explain how emotional expressions can be universal and yet involve culture-specific determinants. Accordingly, *display rules* were presented as culturally learned ways of expressing emotion (see also Ekman, 1972, 1982, 1984).

Ekman (1972) stressed the importance of cultural factors in modifying (not in determining) facial expressions (for a similar argument which does not dismiss universality, see also Biehl et al., 1997). Ekman (1972) pointed out that "learned habits about controlling the appearance of the face (display rules) can and often do intervene between the triggering of the facial muscles by the facial affect program and a visible change in facial appearance" (p. 216). In this perspective, display rules are presented as regulating and overlaying natural displays of emotion which are viewed as energized and pushed forth or squeezed out from one's insides (Zajonc, 1998). Accordingly, Hess et al. (1995) argued that emotional and social displays are not exclusive and that sociality alone does not predict the intensity of emotional expressions. Specifically, their findings indicated that both the underlying (natural) emotion and social context predicted the intensity of smiling behavior.

The adoption of both *valence* and *context* as dimensions of emotional expression on the job suggests a perspective that is not purely psychological nor purely sociological. The perspective taken here appears to best be described as social psychological (see Miller & Leary, 1992; Parkinson, 1996). It also reflects a social constructivist stance on emotion and

in particular that of Averill (1980a, b, c, 1982, 1984) who has positioned emotion as a social role and as a syndrome or a multicomponent process (see also Scherer, 1984a) which could involve the following components: antecedent appraisals, social constituents, subjective experiences, expressive reactions, physiological responses, and coping reactions (Averill, 1980b, 1982, 1984). The social constituents of emotion syndromes are reflected by the *learned* rules or social norms which guide emotion (Averill, 1984; see also Armon-Jones, 1986a, b). These rules determine emotional conditions and reactions and "are represented psychologically as cognitive structures" (Averill, 1980a, p. 305). They regulate emotion responses by guiding: (a) the appraisal of a situation (e.g., Is this a situation in which it is appropriate to express sadness?), (b) the interpretation of bodily reactions which follow the appraisal (e.g., Is it sadness that I now feel?), (c) the behavioral response to the appraisal (e.g., crying), etc. (Averill, 1984). In a like vein, Kitayama and Markus (1994) state that:

> [n]o doubt, emotions are comprised of a myriad of physiological, neurological, and psychological components. Many of these component processes may be demonstrably hardwired. Nevertheless, by themselves, these processes are not emotions. Rather, the components may be combined and accorded their divergent functions and forms through social and cultural processes by which individuals try to accomplish, collectively and personally, a form of adaptation and adjustment to their own immediate sociocultural, semiotic environment ... emotion and culture are mutually and reciprocally related. (pp. 1-2)

Figure 9 conceptualizes Hoschshild's (1983a) perspective on the provider emotion process but also stresses the importance of display rules (Ekman & Frisen, 1969b) which is generally emphasized in the impression management perspective with its focus on the behavioral component of emotion (e.g., DePaulo, 1992; DePaulo & Friedman, 1998; see also Ashforth & Humphrey, 1993). In our model, emotion regulation involves both feeling and display rules. Each set of normative rules addresses a different component of emotion. Feeling rules engage internal feeling states whereas display rules are clearly related to the behavioral (expressive) component of emotion. The multicomponent perspective (see Leventhal & Scherer, 1987; Scherer, 1984a) adopted here is more complex than one which assumes a one-to-one correspondence between internal feeling states and expressive behaviors (cf. Hochschild, 1979, 1983a). It reflects recent psychological evidence which

suggests that the internal feeling state (phenomenological), behavioral (expressive), and physiological response components of emotion are imperfectly correlated and that they therefore represent distinct aspects of emotion (Dimberg, 1990a; Lang, 1978, 1988; Leventhal & Scherer, 1987; Lewicki, 1986; Öhman, 1986; Parrott & Hertel, 1999).

Our focus in subsequent sections is on displayed emotions which are potentially felt and authentic. In reference to Figure 9, we focus on displays which are regulated and emerge from deep acting (displays Category 2) and those which are unregulated and deviant (displays Category 4). Both categories are likely to be perceived as spontaneous and authentic. Spontaneous emotional expressions appear to potentiate states of mutual emotion between actor and observer (Buck, 1991b; Stanislavski, 1948/1965). Both categories of displays also lie at the opposite extremes of an *appropriateness* continuum. The category of displays which is rooted in deep acting is clearly normative whereas that which is deviant is non-normative. Norms or expectations clearly enable the actor and observer to judge what type of display is appropriate at a given moment in a particular situation (Averill, 1980b, 1984; Kemper, 1991, 1993). If the emotional display is not adjusted to the context of the situation, then a positive or negative display (joy or sadness) may be negatively evaluated. Alternatively, adjustment may result in a positive or negative display which will lead to a positive evaluation because of its fit with the normative demands of a situation. The proposed perspective implies that social context considerations moderate the expression of emotion in the service encounter. A contingency hypothesis based on moderation implies an interaction effect (Baron & Kenny, 1986; Kirlinger, 1986; Venkatraman, 1989). The following hypotheses are suggested:

H1a: In the service encounter, the interaction between the valence of emotional displays and the context in which they are expressed will explain more variance in appropriateness ratings than the direct influences of either valence or context alone.

H1b: In the service encounter, emotional displays which stem from deep acting will be judged more appropriate than those which reflect emotional deviance.

9.2 Service Providers' Emotional Displays and Consumer Emotion

The consumer is the target of the service provider's emotional displays (Ashforth & Humphrey, 1993; Hochschild, 1983a; Rafaeli & Sutton, 1987, 1989, 1990, 1991). Fridja (1986) argued that many emotional displays are *interactive displays* designed to affect others. He states that: "[they are] shown for the sake of influencing others, appear to have developed for, or because of, such effect, and occur under eliciting conditions in which influencing others in that particular way appears to be of distinct instrumental value" (p. 25; for similar arguments see also Buck, 1984, 1991b; Fridlund, 1991b; Jones et al., 1991). Despite its evident Darwinian inclinations, this statement paraphrases to some extent Hochschild's (1983) discussion of the strategic uses of emotion in service encounters (see also Parkinson, 1991, 1995, 1996, 1997).

Emotions also emerge from interactions with others (Andersen & Guerrero, 1998; Clark, 1990; Kemper, 1991, 1993; Metts & Bowers, 1994; Miller & Leary, 1992; Parkinson, 1996; Zajonc, 1998). An actor's (service provider's) displays of emotion are stimuli which can generate an emotional reaction in an observer (consumer) (see Dimberg, 1990a, 1995; Fridja, 1986; Hess et al., 1989; Lanzetta & Orr, 1981, 1986; McHugo et al., 1985; McHugo & Smith, 1996; Öhman, 1999; Smith et al., 1996). Nevertheless, there have been disagreements about how emotions are determined in general (Cornelius, 1996; Ellsworth, 1991; Mandler, 1992; Zajonc, 1998) and about how they are determined in social interaction in particular (Andersen & Guerrero, 1998; Hsee et al., 1992; Metts & Bowers, 1994; McHugo & Smith, 1996; Parkinson, 1996; Smith et al., 1996). The proposed model of the *emotion system of the service encounter* (see Figure 9 in Section 6.4) acknowledges and integrates these disagreements and holds that a service provider's emotional displays can generate emotion in a consumer via three distinct processes. Our discussion of the proposed model suggests that each is plausible within the context of interaction and that each involves a different mechanism and different assumptions about emotion.

One mechanism rests in a *cognitive appraisal* of the emotional displays of the service provider. This process generally implies a conscious or attentive evaluation (Scherer, 1993). Increasing levels of cognitive complexity are said to occur in the event that failure,

something unexpected or important (Weiner, 1986; see also Folkes, 1984), or some hindrance to one's goals (Lazarus, 1991a) is perceived to have occurred. The cognitive perspective on emotion emerges as the dominant one in psychology (Cornelius, 1996; Parkinson, 1997; Scherer, 1997) and is likely to be considered as the correct and most promising framework for the study of emotions in the area of marketing (see Bagozzi et al., 1999). However, appraisal theories are rooted in a psychological tradition which generally portrays emotion as a private and personal phenomenon. Although appraisal theories have clearly provided an appealing and bountiful perspective to psychologists (see Scherer, 1997, 1999) and marketing scholars (e.g., Bitner, 1990; Folkes, 1984, 1988) alike, limiting ourselves here to such a perspective would be to do so at the expense of a more fertile understanding of the social and interpersonal nature of emotion.

On the other hand, *primitive emotional contagion* (Hatfield et al., 1992a, 1994; Marsden, 1998) and *preparedness* (Dimberg, 1988b, 1990a; Dimberg & Öhman, 1996; Lundquist & Dimberg, 1995; Seligman, 1970) represent two automatic, direct, and unconscious (pre-attentive) processes by which emotion may be generated in the consumer. *Preparedness* is based on Darwinian precepts and implies a hardwired predisposition to respond to spontaneous emotional displays in others and to other stimuli such as snakes (see Dimberg, 1990a; Dimberg & Öhman, 1996; Öhman, 1999). Hence, reactions based on preparedness are not limited to interpersonal interactions but are most likely determined by evolutionary forces and carry a survival value as responses to threat (Dimberg, 1995; Seligman, 1970). In interaction, preparedness is likely to underlie reactions to displays of fear and anger in another (Öhman, 1999; Smith et al., 1996). Such displays and subsequent reactions are likely to cut short a service encounter rather than perpetuate it.

Alternatively, *primitive emotional contagion* appears to be a distinct phenomenon (see Dimberg, 1990a; Lundquist & Dimberg, 1995) which occurs in interaction (see Hatfield et al., 1994) and is especially well suited for explaining the occurrence of matched emotional states (Andersen & Guerrero, 1998). It does not appear limited to a subset of categorical emotions and thus seems to be broader in scope than preparedness. Furthermore, contagion emerges as a process that is beneficial to interaction in many reported instances (see

Andersen & Guerrero, 1998; Hatfield et al., 1994). Among the three emotion processes outlined in our model of the *emotion system of the service encounter*, primitive emotional contagion emerges as the process which can provide a richer understanding of emotion in interaction or of its social and interpersonal nature (see Zajonc, 1998). Consideration of this process places emotion not at the purely sociological nor at the purely psychological level of analysis but rather at the social psychological (Parkinson, 1996).

Our focus here is on primitive emotional contagion and cognitive appraisal. The primitive emotional contagion literature (e.g., Hatfield et al., 1994; Hsee et al., 1990, 1992, 1993) relies heavily on Jamesian somatic theory which generally suggests that feeling is rooted in bodily reactions (James, 1884; Laird & Bresler, 1992). Somatic theory presents emotion as a bottom-up process that may be modified or suppressed by cognitive intervention (Zajonc, 1998). Emotional contagion involves automatic processing (i.e., pre-attentive perception, no evaluative intent, and no effortful use of cognitive resources) (see Bargh, 1996, 1997; Jacoby et al., 1997; Öhman, 1999; see also Schneider et al., 1984). On the other hand, cognitive theories of emotion assert the primordial importance of antecedent appraisal (cognition) as a determinant of emotion (Lazarus, 1991a; Parkinson, 1997). Hence, these theories present emotion as essentially a top-down process and thus imply controlled processing (i.e., attentive/conscious perception, evaluative intent, and effortful use of cognitive resources) (see Scherer, 1993; see also Schneider et al., 1984). Despite their wide divergences, both perspectives are heavily researched and provide clear theoretical accounts of how an emotion can be generated in a consumer during interaction with a service provider. In addition, both perspectives appear plausible in the context of high-contact service encounters.

That both mechanisms can be independently or concurrently involved in the generation of an emotional response during interaction is suggested by recent findings which hold that despite the importance attributed to bodily feedback by Jamesian psychologists, it is *unnecessary* for emotional experience (see Hatfield et al., 1992b; Fridlund, 1994; McIntosh, 1996) and that although some have contended that antecedent appraisal is required for emotion to occur (e.g., Lazarus, 1991a), it also seems that it in reality it is *unnecessary*

(see Parkinson, 1997). In both perspectives, the proposed antecedents (i.e., bodily feedback in the Jamesian tradition and conscious cognitive appraisal in the cognitive) in fact appear only *sufficient* to generate an emotional reaction.

This realization is not only grounded in empirical findings but also echoes the long held position of Averill (1980a, b) who suggests that emotion syndromes are *polythetic* or "not definable in terms of a limited number of characteristics" (1980a, p. 308) and that not every instance of any particular emotion is necessarily associated with all the proposed components of emotion. Averill (1980b) states that: "there is no single response, or subset of responses, which is *essential* to an emotional syndrome" (p. 146). In other words, manifestations of any subset of the components of emotion may be sufficient to define an emotional experience but none is absolutely necessary. Accordingly, Averill (1980a) further holds that: "[a]n emotion syndrome may include many diverse elements, some of biological and some of social origin, but none of which is essential to the identification of the syndrome as a whole" (p. 308).

9.2.1 Cognitive Appraisal of Emotional Displays and Consumer Emotion

Cognitive theories of emotion hold that some combination of antecedent appraisal dimensions results in a discrete emotional state (e.g., Ellsworth, 1991; Ellsworth & Smith, 1988a, b; Fridja, 1986, 1988; Lazarus, 1991a; Ortony et al., 1988; Reisenzein & Spielhofer, 1994; Roseman, 1984, 1991; Scherer, 1982a, 1984a, 1988b, 1993, 1997; Scherer & Ceshi, 1997; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1985a, 1986). Attention is generally considered as a hallmark of conscious cognitive processes (Jacoby et al., 1997; Kunda, 1999; Öhman, 1999). The content of many proposed sets of appraisal dimensions suggests that appraisals involve mental calculus (Scherer, 1993; Zajonc, 1980, 1984), that they occur in a rather conscious or attentive fashion (Scherer, 1988b, 1993, 1997), and hence, that the level of information processing which underlies and antecedes the generation of emotion is controlled rather than automatic (see Schneider et al., 1984; Shiffrin & Schneider, 1977). Accordingly, Wilson and Klaaren (1992) note that these theories hold that emotional experience is "primarily data driven, caused by something that happens in the current situation" (p. 2).

Deep Acting, Emotional Deviance, and Expectancy Disconfirmation

The proposed model depicted in Figure 9 includes an appraisal theory component based on the work of Weiner (1985a, 1986). This theory holds that a general outcome-dependent positive or negative affective state (e.g., happy or unhappy) will result from an initial appraisal of an event as a success/failure or as expected/unexpected. If the event is perceived as unexpected, important, or a failure, Weiner (1986) suggests that "increasing cognitive complexity generates more differentiated emotional experience" (p. 121). Increasing levels of cognitive complexity (greater levels of controlled processing) are reflected in a causal attribution of the evaluated outcome. Attribution emerges here as a mediator of affect (Graham & Brown, 1988). In accordance with Weiner's (1985a, 1986) theory, discrete attribution-dependent emotional states ensue and the specification of a particular state can be predicted from scores on the attribution dimensions of *locus*, *stability*, and *controllability* (Russell & McAuley, 1986;Weiner, 1986). Aspects of Weiner's (1985a, 1986) model have been applied to service encounters (e.g., Bitner, 1990; Chebat, Filiatrault, Gélinas-Chebat, & Vaninsky, 1995) and product-related evaluations (see Folkes, 1984, 1988).

The proposed model of the *emotion system of the service encounter* posits that displays rooted in emotional deviance (displays Category 4 in Figure 9) may result in initial appraisals or perceptions of failure or unmet expectations. That customers have expectations about how a service provider should behave is an underlying theme of the service evaluation literature (see Oliver, 1996). Consumer expectations are partly and clearly forged by company communications (Hochschild, 1983a). Expectancy disconfirmation is a form of appraisal (Reisenzein & Spielhofer, 1994; Scherer, 1988b; Scherer & Ceschi, 1997). Much of the service quality literature from the 1980s and early 1990s vehemently argued that an expectancy disconfirmation process occurs over specific dimensions of service quality (see Grönroos, 1990; Parasuranam et al., 1988) and antecedes satisfaction (see Oliver, 1996).

However, disconfirmed expectations in interaction can also occur with respect to broader aspects of the service delivery and the service provider than those proposed in the service evaluation literature. Evaluated outcomes or events which are judged within

frameworks of appraisal theories appear rather broadly defined and have included a wide variety of social and impersonal events (see Folkes, 1984; Lazarus, 1991a; Scherer, 1993, 1997; Scherer & Ceschi, 1997; Smith & Lazarus, 1993; Smith & Ellsworth, 1985, 1987; Weiner, 1985a, 1986). Social expectations are cognitive structures analogous to social norms (Wilson & Klaaren, 1992). Individuals develop expectations about what are typical and appropriate communicative behaviors in differing types of social interaction (Burgoon, 1993; Levitt, 1991). In the services literature, this seems especially suggested by the notions of *service script* and *role* (see Ashforth & Humphrey, 1993; Smith & Houston, 1983). Interactional expectancies or norms can involve a variety of target characteristics which include trait-like, state-like, and/or situational attributes, and verbal and nonverbal communication behaviors (Burgoon, 1978, 1983, 1993; Burgoon & Hale, 1988; Burgoon & LePoire, 1993; Burgoon & Walther, 1990). Burgoon (1993) states that expectancies frame social situations and "define and shape interpersonal interaction" (p. 32). Moreover, expectancies play a role in predicting dyadic interaction patterns in general and the communication of emotion in interaction in particular (Burgoon, 1983, 1993; Burgoon & Hale, 1988). Expectations aid a person in determining whether or not it is appropriate to display a particular emotion (Burgoon, 1993). Specifically, social expectations or norms guide the choice of specific display rules in situations (Andersen & Guerrero, 1998) and result in the unraveling of *emotion scripts* in interaction (Fischer, 1991; for a similar argument which is not specific to interaction, see Russell, 1989).

Quite similarly to Weiner (1985a, 1986), Burgoon (1993) holds that expectancy violations elicit emotions and argues that when expectancies are violated, individuals focus attention on the violation to establish whether it represents a positive or negative disconfirmation (see also Buller & Burgoon, 1986; Burgoon & Hale, 1988; Burgoon, Newton, Walther, & Baesler, 1989). The valencing process involves (a) an interpretation of the partner as positive or negative given the behavior and (b) an assessment of the behavior as rewarding or non-rewarding. These assessments are largely made with respect to various social norms which include conversational norms. Personal preference is involved in assessing a behavior as rewarding or non-rewarding (Burgoon & Walther, 1990). These

judgments subsequently impact on whether or not the expectancy violation is deemed positive of negative. Burgoon (1993) states that:

> [p]ositive violations, in which the enacted behavior is more positively valenced than the expected, are theorized to produce more positive interaction patterns and outcomes than conformity to expectancies; negative violations, in which the enacted behavior is more negatively valenced than the expected behavior, are theorized to be detrimental, relative to expectancy confirmation. (p. 40)

In Burgoon's (1993) account, positive violations thus tend to lead to positive emotions (e.g., joy) and positive behaviors which reflect involvement and intimacy. Conversely, negative violations are likely to result in negative emotions (e.g., anger or sadness) and perhaps effort directed at returning the interaction to a more positive state (e.g., "cheer up") or in reciprocity by displaying negative behavioral patterns (e.g., hostility, anxiety, and/or withdrawal) (Burgoon, Stern, & Dillman, 1995; for similar propositions, see Levitt, 1991; Levitt, Coffman, Guacci-Franco, & Loveless, 1994). Expectancy confirmation appears to carry no effect on emotion and behavior in Burgoon's (1993) perspective but seems to involve the generation of a diffused positive affective state in Weiner's (1985a, 1986) theory.

Expectancy confirmation or a positive disconfirmation appears to be suggested by Hochschild's (1983a) notion of *deep acting* as the more engaging form of emotional labor. On the other hand, a negative expectancy disconfirmation appears especially suggested by Hochschild's (1983a) discussion of *emotional* or *affective deviance*. These two categories of displays vary implicitly with respect to their appropriateness or normative nature. Judgments of appropriateness are positioned here as a form of cognitive appraisal which reflects the notion of expectancy (dis)confirmation. A clear analog to appropriateness judgments is Scherer's (1988b,1993, 1997, 1999; Scherer & Ceschi, 1997) appraisal dimension of *compatibility with standards* which is defined as "the degree of concordance between the situation and external standards" and is taken to reflect norm (in)compatibility (Scherer & Ceschi, 1997, p. 219). In some form or another, this dimension appears fairly common across cognitive theories of emotion (see Smith & Ellsworth, 1985, 1987; Ellsworth, 1991, 1994; Ellsworth & Smith, 1988a, b; Fridja, 1986; Ortony et al., 1988). This dimension also underlies Averill's (1980a,b,c, 1982, 1984) social constructivist perspective

on emotion in which it is held that social norms as learned rules guide emotional reactions. Specifically, social norms are presented as cognitive structures which regulate: (a) the appraisal of a situation (e.g., Is this a situation in which it is appropriate to express sadness?), (b) the interpretation of bodily reactions which follow the appraisal (e.g., Is it sadness that I now feel?), (c) the behavioral response to the appraisal (e.g., crying), etc. (Averill, 1984). Finally, the *comparison to standards* paradigm has dominated the services evaluation literature and has typically been reflected in an expectancy disconfirmation framework (see Oliver, 1996). The following hypothesis is suggested:

H2a: In the service encounter, appropriate emotional displays which stem from deep acting will result in a positive (pleasant) emotional state in the consumer; and conversely, inappropriate emotional displays reflecting emotional deviance will result in a negative (unpleasant) emotional state in the consumer.

Various Aspects of the Service Can Be Evaluated More Simply

Despite the fact that work on service quality and satisfaction puts tremendous emphasis on expectancy disconfirmation (Oliver, 1996; Rust & Oliver, 1994; Taylor & Cronin, 1994), it is not the only posited form of appraisal in cognitive theories of emotion (see Scherer, 1988b). Various researchers have suggested that an events or outcome may initially be appraised in a simpler fashion such as pleasant (positive) or unpleasant (negative) (Smith & Ellsworth, 1985, 1987) or as a success or failure (Weiner, 1986) and that additional dimensions of appraisal are necessary for specifying a resultant affective state as a discrete emotion category (see Ellsworth & Smith, 1988a; Keltner et al., 1993; Smith & Ellsworth, 1985, 1987; Weiner, 1986).

Although the focus of this dissertation is on the effects of displayed emotion in the service encounter and hence, on interactional factors, cognitive appraisals can realistically occur with respect to a variety of elements in a service encounter. These factors can reflect aspects of the actual service that was performed (i.e., technical aspects of service; for a discussion see Grönroos, 1990; Lehtinen & Lehtinen, 1982) and the way in which the service was delivered (i.e., interactional/process factors or functional aspects of service; for a discussion see Grönroos, 1990; Lehtinen & Lehtinen, 1982). Evaluated outcomes related to the technical aspects of service can involve such things as a diagnosis made by a physician,

a repair done by a servicing agent, or a haircut. Evaluated outcomes related to process factors can potentially include the valence and intensity of emotional displays by a service provider, their appropriateness, their level of authenticity, etc. An appraisal theory explanation of consumer emotion should take into account various categories of service attributes.

Although service attributes are typically classified as determinants of technical or functional service quality (see Asubonteng et al., 1996; Grönroos, 1990; Mittal & Lassar, 1998; Parasuranam et al., 1985), Johnson and Zinkhan (1991) offer a perspective which reflects this categorization but specifies it further and relates it to emotion in the consumer. Specifically, they argue that the service attributes *outcome*, *competency*, and *courtesy* and the interactions among them influence the affective responses of consumers. *Competency* clearly reflects the technical component of service quality whereas *courtesy* is clearly related to its functional counterpart. On the other hand, *outcome* is presented as the actual outcome for the consumer (i.e., win or lose). For instance, the outcome of a legal case as a victory may positively contribute to service evaluation irrespective of courtesy and competence. This tripartite conceptualization tends to differ from other conceptualizations which tend to equate outcome quality with the technical quality component (e.g., Parasuranam et al., 1985). The following hypotheses are suggested:

H2b: In the service encounter, emotional displays evaluated as pleasant (unpleasant) will result in a pleasant (unpleasant) emotional state in the consumer.

H2c: In the service encounter, a positive (negative) outcome evaluation will result in a positive (negative) emotional state in the consumer.

9.2.2 The Consumer is Subject to Primitive Emotional Contagion in the Service Encounter Irrespective of Social Context Considerations

Matched emotional states are often observed in the context of interpersonal interaction (e.g., Andersen & Guerrero, 1998; Klinnert et al., 1983; Magai & McFadden, 1995; Oatley & Johnson-Laird, 1987). Emotional contagion has been presented as a form of empathy (Levenson, 1996) and appears to provide a mechanism which can explain smooth encounters based on mutual entrainment and rapport (see Andersen & Guerrero, 1998; Hatfield et al., 1994; Parkinson, 1996). Consequently, the emotional reaction from contagion is likely to result in matched emotion (e.g., expressed happiness in the provider results in felt

happiness in the consumer) (see Hatfield et al., 1995; Hsee et al., 1990, 1992, 1993; Levenson, 1996). Not only does the work on emotional contagion suggest that emotions emerge from interaction with others, it also implies that interaction offers a forum for the exchange of mutual emotion (Andersen & Guerrero, 1998; Hatfield et al., 1994; Metts & Bowers, 1994; Parkinson, 1996).

In a series of experiments, Lanzetta and his colleagues (Bush et al., 1989; Englis et al., 1982; Lanzetta & Englis, 1989; McHugo, Lanzetta, & Bush, 1991; McHugo et al., 1985; Vaughan & Lanzetta, 1980, 1981) clearly showed that mere exposure to the emotional displays of another could result in similar displays in the observer. In their discussion of facial reactions to facial displays, Englis et al. (1982) state that: "in many if not most cases, an observer will respond to a model's affective display with a similar emotion" (p. 378). Similar results have appeared in a series of less rigorous studies performed by Hatfield and her associates (Hatfield et al., 1995; Hsee et al., 1990, 1992, 1993; Uchino et al., 1991).

Emotional contagion appears as an umbrella term for a variety of processes. Multiple determinants of emotional contagion are therefore discussed in the literature (see Andersen & Guerrero, 1998; Bush et al., 1989; Dimberg, 1990a; Hatfield et al., 1992a, 1994; Lundquist & Dimberg, 1995). One mechanism that seems to be gaining theoretical and empirical support is based on motor mimicry and subsequent feedback and is said to result in *primitive emotional contagion* (Hatfield et al., 1992a, 1994). The process appears automatic and to occur after mere exposure to another (Marsden, 1998). Hence, the mechanism of primitive emotional contagion does not appear to involve evaluative intent, conscious attention, and reasoned evaluation but is rather preattentive (see Öhman, 1999). With its focus on somatic processes, this proposed mechanism of emotional contagion therefore deviates radically from the highly cognitive content of appraisal theories which overwhelmingly tend to presume controlled and therefore conscious/attentive evaluations not only in the content of proposed appraisal dimensions but also in ways to conduct research (cf. Öhman, 1999; Scherer, 1993, 1997, 1999).

Much accumulated evidence indicates that people tend to unconsciously mimic facial expressions (e.g., Bavelas et al., 1987; Bernieri et al., 1988; Cacioppo et al., 1990; Dimberg,

1982; Vaughan & Lanzetta, 1980), postures (e.g., Bavelas et al., 1988; Scheflen, 1964), and vocal patterns (e.g, Capella, 1991; Chapple, 1982; Condon, 1982); and consequently synchronize their rhythms and movements to those of another person during interaction (e.g., Bernieri, 1988; Bernieri et al., 1988; Warner, 1988). The mimicry process is in all likelihood unconscious/pre-attentive and automatic (Davis, 1985; Hatfield et al., 1992a). Bavelas et al. (1987) suggest that elementary motor mimicry is "[an] overt action by an observer that is appropriate to or mimetic of the situation of the other person, rather than one's own" (p. 317). They add that: "[t]he observer acts as if in the other's place to the point of wincing at his pain, smiling at her delight, or trying to avoid that person's danger" (p. 317). Synchrony (coordination) in mimicry between people appears to provide a process which enables rapport (Bernieri, 1988; Bernieri et al., 1988; Tickle-Degnen & Rosenthal, 1987).

Primitive emotional contagion is not only dependent on mimicry. Its proposed mechanism also involves bodily feedback (see James, 1890). The facial feedback hypothesis has received much attention as a vicarious mechanism which, through mimicry, mediates emotional experience in a social observer (Bush et al., 1989; Dimberg, 1982; Hatfield et al., 1992a, 1994; Lanzetta et al., 1976; McHugo et al., 1985; McHugo & Smith, 1996; McIntosh, Druckman, & Zajonc, 1994; Smith et al., 1996; Vaughan & Lanzetta, 1980, 1981). Thus, spontaneous nonverbal behavior may directly result in corresponding nonverbal behavior in an observer through motor mimicry (Davis, 1985; Dimberg, 1982; McHugo et al., 1985) and subsequent facial feedback may determine the observer's feeling state (McIntosh, 1996).

Bodily feedback and emotional experience (i.e., internal feeling state) have been linked by many researchers (e.g., Adelmann & Zajonc, 1989; Ekman, 1992a; Laird & Bresler, 1992; Leventhal, 1980; Manstead, 1988; McIntosh, 1996). The proposed mechanisms by which facial (Manstead, 1988; McIntosh, 1996), postural (Bull, 1968; Cacioppo, Priester, & Berntson, 1993; Duclos et al., 1989), and vocal (Hatfield, Costello, Schalenkamp, Hsee, & Denney, 1995; Zajonc et al., 1989) forms of feedback influence other aspects of emotion are numerous. Explanations of how facial feedback results in the activation of other components of emotion have referred to conditioning (Buck, 1980); self-perception (Duclos et al., 1989; Laird, 1974 1984; Laid & Bresler, 1992); direct feedback

from receptors in facial skin and muscles (Izard, 1990; Lanzetta, Cartwright-Smith, & Kleck, 1976); emotion systems based on central nervous system (CNS) activity where activation of one component of emotion results in the activation of the others (Ekman, 1992a; Izard, 1971, 1977; Levenson et al., 1990); guidance by expressive behavior of a central motor mechanism which activates emotional experience (Leventhal, 1984); dramaturgy (Fridlund, 1994); and the regulation of venal blood flow in the brain by expressive behavior (Zajonc, 1985; Zajonc et al., 1989). The various perspectives are not mutually exclusive in that "the influence of the face on emotions is likely multiply determined" (McIntosh, 1996, p. 136). Some of these perspectives completely downplay the role of cognition in feedback mechanisms (e.g., Zajonc et al., 1989) whereas others point to varying levels of cognitive involvement (e.g., Fridlund, 1994; Laird & Bresler, 1992).

Winton (1986) differentiated between the dimensional and categorical versions of the feedback hypothesis. The dimensional version suggests that subjective emotional experience is influenced by facial action along the valence (pleasantness-unpleasantness) dimension (e.g., smiling elevates one's mood whereas grimacing or frowning depresses it). The stronger categorical version holds that facial activity has emotion-specific effects (e.g., exaggerating an angry face intensifies subjective feelings of anger). In his review of the research on facial feedback, McIntosh (1996) concludes that the dimensional version was more strongly evidenced across studies. In their review of this research, Burgoon, Buller, and Woodall (1996) also suggest that: "facial expressions may affect the intensity of the felt emotion or create general emotional feelings such as pleasantness or unpleasantness, but facial expressions may not produce specific emotional experiences such as disgust, anger, and contempt" (p. 275). Nevertheless, Hatfield and her associates have consistently demonstrated the occurrence of primitive emotional contagion at a categorical level (see Hatfield et al., 1995; Hsee et al., 1990, 1992, 1993; Uchino et al., 1991).

Chovil (1991) examined the impact of varying levels of sociality on facial mimicry. She found that facial mimicry increased with the level of sociality of the interaction and that face-to-face interaction produced the most mimicry. High-contact service encounters thus offer a social context where emotional contagion is clearly well potentiated. However,

contagion effects can be easily and often unintentionally triggered within contexts which involve lower levels of sociality. Various types of stimuli other than those involved in live face to face interaction with another (e.g., photographic stills, audio recordings, television programing, and video excerpts/vignettes) have been used in experimental research to successfully induce an empathic response in observers (Hatfield et al., 1994, 1995; McHugo et al., 1985; McHugo et al., 1991; Mullen et al., 1986). For instance, Mullen et al. (1986) found that during the 1986 electoral campaign, the newscaster Peter Jennings, who unlike Tom Brokaw and Dan Rather, had subtly displayed more positive affect when referring to Reagan than to Mondale. It was found that voters who watched Jennings on ABC were more likely to vote for Reagan than those who watched the coverage on CBS and NBC.

In another study, McHugo et al. (1985) found that Reagan's videotaped expressions tended to elicit similar facial action in observers whereas those of Mondale did not. Reagan emerged as the more able communicator. Buck (1991b) related this finding to Reagan's able use of spontaneous/nonverbal communication cues. Buck (1991b) states that: "[a]pparently Reagan's expressions had a *direct* [italics added] emotional impact on the viewer, even via videotape ...." (p. 134). Similarly, Masters, Frey, and Bente (1991) found that emotional responses to political leaders in video excerpts were heavily influenced by the nonverbal style of the leaders and that this occurred at an unconscious level. Spontaneous nonverbal indicators of emotion do indeed appear instrumental in generating emotion in an observer via primitive emotional contagion (Hsee, Hatfield, & Chemtob, 1992). Accordingly, Stanislavski (1948/1965) holds that to affect human feelings requires "natural emotions at the very moment in which they appear before you in the flesh. He adds that: "[t]hey call for the direct cooperation of nature itself" (p. 268). Stanislavski's use of the term "natural" clearly refers to spontaneous expressions of emotion. In Hochschild's (1983a) perspective, emotional displays which stem from deep acting and emotional deviance are spontaneous and thus carry the potential of triggering emotional contagion in the target of these displays (i.e., the consumer).

The service evaluation literature has stressed the importance of prior expectations (e.g., Grönroos, 1990; Oliver, 1996; Parasuranam et al., 1985; Taylor, 1995). More generally,

expectations emerge as norms which guide behavior (Wilson & Klaaren, 1992) and their (dis)confirmation represents a dimension of appraisal in cognitive theories of emotion (Scherer, 1988b). However, prior expectations do not appear to play a role in emotional contagion (Uchino et al., 1991). Because the type of perception which is involved in vicariously induced affect is most likely pre-attentive (Öhman, 1999), its result is automatic and direct or apparently unmediated/unmoderated by cognition (Hatfield et al., 1994). Consequently, primitive emotional contagion appears to be a very rapid phenomenon. Studies/paradigms which have sought to generate an emotional reaction in subjects and avoid conscious processing of stimuli suggest that it typically takes milliseconds for a reaction to occur (see Dimberg, 1990a; 1991, 1994, 1995; Dimberg & Öhman, 1996; Öhman, 1999; Zajonc, 1980). For instance, Dimberg and Öhman (1996) state that: "masking studies suggest that facial displays exert most (if not all) of their effect on the receiver virtually instantaneously at onset" (p. 176). They add that:

> [t]his means that emotional responses to facial stimuli may be initiated independently of conscious awareness. Thus, we may react to inconspicuous facial cues from a person and this emotionally colored response may determine our feeling of liking or disliking for him or her regardless of our conscious thoughts. Even more dramatic, the speed of facial muscle responses to facial displays documented by Dimberg (1991, 1994, ...) suggests that we automatically may respond to the facial display without conscious awareness that we have perceived the display in the first place. Thus, the results we have reviewed suggest that long sequences of interactions between people may be partly determined by nonconscious perceptions and automatic responses on the part of the sender and the receiver. (pp. 176-177)

Although primitive emotional contagion provides a level of analysis of emotion that is interpersonal (see Andersen & Guerrero, 1998; Hatfield et al., 1994; Parkinson, 1996), the feedback component of its underlying mechanism which is immediately related to felt emotion in an observer (see Hatfield et al., 1992a, 1994) is a process rooted in somatic theory. Jamesian somatic theorists have tended to downplay the involvement of cognition in emotion (see Ellsworth, 1991; James, 1884, 1890; Levenson, 1992; McHugo & Smith, 1996; McIntosh, 1996; Smith et al., 1996; Tomkins, 1962, 1963, 1981a, 1982). Similar arguments which stress the automatic and non cognitively-mediated nature of synchrony also appear to downplay the role of cognition in primitive emotional contagion (for a review, see Hatfield

et al., 1994). Furthermore, somatic theorists have generally disregarded the effects of social factors on emotion (Graham et al., 1981).

On the other hand, considerations of social context in sociological theory and especially in social constructivism have often been addressed from the perspective of symbolic interaction which represents a cognitively-oriented sociological approach (see Kemper, 1991, 1993). In Averill's (1980a, b, c, 1982) social constructivist perspective on emotion, antecedent cognition appears to play an important role in assessing what emotion is appropriate in a given situation (i.e., sociocultural context considerations). In Hochschild's (1983a) perspective, the role of cognition appears somewhat unspecified and ambiguous but is often alluded to. Comparisons of feeling rules to actual feeling states prior to regulation seem to operate with varying and unspecified levels of cognitive involvement in social context considerations. These comparisons can be done passively or actively according to Hochschild (1983a). Indirect evidence of Hochschild's (1979, 1983a) position on the role of cognition in emotion is provided by Kemper (1991, 1993) who has categorized her work as heavily influenced by symbolic interactionism and social constructivism. In turn, this tends to point to a cognitive orientation. On the other hand, the mechanism of primitive emotional contagion is automatic, direct, triggered by mere exposure (Marsden, 1998; Parkinson, 1996), and based on somatic processes whose proponents have generally tended to downplay cognitive involvement as conscious appraisal in emotion (Ellsworth, 1991, Zajonc et al., 1982). Hence, it appears that social context considerations should not intervene in (i.e., mediate or moderate) this emotion process from the perspective of somatic theorists. The following hypotheses are suggested:

H3a: Emotional contagion occurs in the service encounter.

H3b: Variations in social context will have no effect on emotional contagion in the service encounter.

9.2.3 Cognitive Appraisal or Emotional Contagion as a Determinant of Emotional Responses

The hypotheses generated in sections 9.2.1 and 9.2.2 were independently based on the tenets and findings of two different research traditions of emotion. Appraisal theories give primacy to conscious cognition whereas work on emotional contagion downplays its

involvement. These hypotheses were generated by strictly taking into consideration one or the other perspective. However, appraisal theories and primitive emotional contagion clearly represent two mechanisms which are likely to be involved in generating an emotional response in the consumer during interaction with a provider. An attempt to integrate this research should take into account both perspectives simultaneously. This is suggested in our model of the *emotion system of the service encounter.*

When taken separately, the literatures which discuss these mechanisms generally potentiate their functioning in the service encounter. However, the literature on emotional contagion evidently does so more than the literature on appraisal theories of emotion (Parkinson, 1996). When scanning over the various cognitive theories of emotion and the impersonal application examples that are used in this literature (e.g., Lazarus, 1991a; Roseman, 1984, 1991; Scherer, 1993; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1985a, 1986), it quickly becomes apparent that bringing these theories into play in an interactional context such as the service encounter is often an inferential leap. Their stimulus-response format and their general lack of applicability to episodic and feedback-dependent situations (see Scherer, 1993) such as interpersonal interactions clearly reflect an assumption which holds that emotion is a private and personal state.

The rather obvious question which remains to be answered is when will one or the other process take precedence in the service encounter. As discussed above, cognitive theories of emotion suggest increasing levels of cognitive involvement when an event or outcome is relevant to one's goals (Lazarus, 1991a) or when it is construed as a failure or an unexpected occurrence (Weiner, 1985a, 1986). The expression of non-normative emotions can clearly be perceived as inappropriate or as a breach of etiquette and consequently result in increased levels of cognitive functioning (attention, evaluative intent, active and effortful use of cognitive resources, etc.) on the part of the consumer in an effort to understand the behavior of the provider (Weiner, 1986) or to relate it to one's personal goals and coping potential (Lazarus, 1991a). An outcome of service not related to interactional factors which is construed as a failure (e.g., poor haircut, negative diagnosis, etc.) may also result in

increased cognitive complexity which may lead to discrete negative emotion.

Alternatively, the literature on emotional contagion suggests pre-attentive or unconscious processes (Bavelas et al., 1987; Davis, 1985; Hatfield et al., 1992a,1994; Öhman, 1999). In fact, the involvement of cognition actually appears to interfere with motor mimicry as a component process of the proposed mechanism of primitive emotional contagion (see Hatfield et al., 1994). If we hold to Weiner's (1985a, 1986), Burgoon's (1993; Buller & Burgoon, 1986; Burgoon & Hale, 1988; Burgoon, Newton, Walther, & Baesler, 1989), as well as Scherer's (1984a, 1988b, 1993) and Lazarus' (1991a; Smith & Lazarus, 1993) propositions which are suggestive of varying levels of cognitive complexity in appraisals of events, it seems that a smooth encounter with no apparent mishap should result in minimal levels of mental calculus or perhaps none at all which, in turn, should lead to an affective state that is positive but diffused and thus difficult to label. In such uneventful encounters, the proponents of emotional contagion (e.g., Andersen & Guerrero, 1998; Hatfield et al., 1994; Parkinson, 1996) would argue that automatic rather than controlled processing (see Kunda, 1999; Öhman, 1999; Schneider et al., 1984) should predictably occur. This form of rudimentary or pre-attentive cognition is presented as implicit in James' (1884, 1890) work (see Ellsworth, 1991; Gray, 1999) and Jamesian tenets clearly underlie one aspect of the proposed mechanism of primitive emotional contagion (see Hatfield et al., 1994). Therefore, it appears that appropriate emotional displays should not trigger attentive or controlled processing but rather potentiate the automatic functioning which underlies the mechanism of emotional contagion whereas inappropriate emotional displays are more likely to result in increased cognitive complexity, more controlled processing, and lead to emotion in the manner suggested by appraisal theories. The following hypotheses are suggested:

H4a: In the service encounter, appropriate emotional displays will result in emotional contagion rather than cognitive appraisal as the determining mechanism of the consumer's emotional response.

H4b: In the service encounter, inappropriate emotional displays will result in cognitive appraisal rather than emotional contagion as the determining mechanism of the consumer's emotional response.

Consumer Emotional States Other than Those Displayed by the Provider are an Indicator of a Cognitive Emotion Process

If the contagion perspective on emotion in interaction is correct, provider emotion should predominantly be reflected in consumer emotion ratings. On the other hand, if categorical emotions other than those displayed by the provider are reported by the consumer, it appears sensible to presume that these emotions may be attributed to a cognitive evaluation of some aspect of the service encounter. Appraisal theories of emotion typically associate scores on varying sets of appraisal dimensions to discrete emotion categories (Reisenzein & Hofmann, 1990, 1993; Reisenzein & Spielhofer, 1994; Scherer, 1988b, 1993). These emotion categories have tended to be negatively valenced (e.g., Lazarus, 1991a; Roseman, 1984, 1991; Russell & McAuley, 1986; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1986). Although it is quite obvious that positive emotions are clearly less numerous than their negative counterparts in proposed lists of basic emotions (e.g., Ekman & Friesen, 1975; Ekman, 1992a, b, 1999; Izard, 1977), an examination of the predictions made by many cognitive theories (e.g., Lazarus, 1991a; Russell & McAuley, 1986; Smith & Ellsworth, 1985, 1988; Weiner, 1985a, 1986) shows that these frameworks are inherently limited in predicting discrete positive affective states and in differentiating among possibly distinct positive emotional states such as joy and elation (see Bagozzi, 1991).

In Weiner's (1985a, 1986) theory, positive outcome-dependent emotional or affective reactions are likened to diffused positive mood states and are said to result from perceptions of successful (expected) events or outcomes. They are not attribution-dependent but rather outcome-dependent states (Russell & McAuley, 1986). Increased cognitive complexity via an attribution process then serves to further specify these states as discrete emotions. In appraisal theories in general, appraisal forms other than those based on a pleasant-unpleasant dimension indicate increased levels of cognitive complexity in evaluation (e.g., Lazarus, 1991a; Smith & Ellsworth, 1985). In other words, to further specify a particular discrete emotion, additional dimensions are required in an evaluation which initially engages judgment over a pleasant-unpleasant continuum. These dimensions add to the explanatory

power of a particular cognitive model of emotion. For instance, Keltner et al. (1993) state that:

> Smith and Ellsworth (1985), for example, in a study of 15 emotions, found that although the dimension of pleasantness-unpleasantness accounted for the largest proportion of the variance, relative pleasantness was quite unimportant in differentiating among the positive or negative emotions. That is, once a person feels bad, degrees of "badness" are of little use in predicting whether the emotion will be sadness, anger, fear, guilt, or some other negative emotion. Instead, perceptions of agency assume central importance (Ellsworth & Smith, 1988[a]). When people perceive some other person to be the cause of their misfortune, they feel angry; when people perceive impersonal circumstances beyond human control to be the cause of their misfortune they feel sad; and when they perceive themselves to be the cause of their misfortune they feel guilty. (p. 741)

In this perspective, the emotion *sadness* for example emerges as an unpleasant emotion but one that also involves the belief that a situation is *uncontrollable* (Tesser, 1990). The *controllability* dimension plays a fundamental role in appraisal theories based on attribution. For instance, Weiner, Graham, and Chandler (1982) provided an appraisal theory analysis of pity, anger, and guilt (see also Weiner et al., 1978, 1979). The three appraisal dimensions that were used had been identified in prior research on the structure of causal attributions (see D. Russell, 1982). They reported that:

> anger is greater given controllable than uncontrollable causes ... whereas pity is greater given uncontrollable than controllable causes .... Within the controllable causes, anger is enhanced when causality also is internal and stable, whereas pity is increased when the uncontrollable cause is internal and stable. (pp. 231-232)

One attribution-dependent emotion which has received some attention in the area of consumer behavior is anger in reaction to product failure (e.g., Folkes, 1984, 1988). As pointed out above, anger involves controllable causes and an attribution to the actions of others (Russell & McAuley, 1986; Weiner et al. 1978, 1979; for a fairly detailed account of anger from a constructivist perspective with emphasis on sociocultural factors, see Averill, 1982). On the other hand, sadness emerges as an emotion which involves uncontrollable causes. For instance, Lazarus (1991a) holds that the core relational theme for sadness is one of 'irrevocable loss' or 'helplessness about harm or loss' (see also Lazarus, 1991a; Power, 1999; Smith & Lazarus, 1993). These antecedent states may be permanent or temporary

(Lazarus, 1991a; Oatley & Johnson-Laird, 1987). The intensity and duration of sadness vary according to these and other antecedent factors (Power, 1999). With respect to other emotions investigated in appraisal theory frameworks, relatively weaker discriminable relationships between sadness and specific cognitions have been reported (e.g., Ellsworth & Smith, 1988a; Smith & Ellsworth, 1987; Smith & Lazarus, 1993). Smith and Lazarus (1993) suggest that the semantic category of *sadness* may be less specific than that of other emotions such as anger and that many forms of sadness appear to be subsumed under the category label *sadness* (see also Smith & Lazarus, 1990).

Expressions of emotion in an actor can result in an attribution process in the target of those displays (Karasawa, 1995; Liu, Karasawa, & Weiner, 1992). In service encounters, if emotion-determining appraisals are made with respect to process factors, then failure to comply with expression norms should lead to increased cognitive complexity and trigger an attribution process on the part of the observer (Weiner, 1986). Inappropriate emotional expressions will in all likelihood be regarded by the consumer as controllable on the part of the provider. This failure in emotional labor should lead to anger on the part of the consumer (see Russell & McAuley, 1986). Similarly, failure in a component of service not related to process factors such as *outcome* (for example, the loss of a court case, see Johnson & Zinkhan, 1991) may also result in an attribution process (see Folkes, 1984, 1985, 1988; Folkes et al., 1987). If the cause is seen as controllable (e.g., the provider did not demonstrate enough effort) then anger is also likely to result. The following hypotheses are suggested:

H4c: In the service encounter, discrete consumer emotions which do not match or reflect the emotions displayed by the provider will be reported when failure occurs in a component of service.

H4d: In the service encounter, failure in a component of service will result in anger in the consumer.

9.3 Service Providers' Emotional Displays and Service Evaluation

9.3.1 The Appropriateness of Emotional Displays and Service Evaluation

Hochschild (1983a) has strongly emphasized the importance of emotional labor to the delivery of service. For instance, she holds that: "[e]motional labor is potentially good. No customer wants to deal with a surly waitress, a crabby bank clerk, or a flight attendant

who avoids eye contact in order to avoid getting a request. Lapses in courtesy by those paid to be courteous are very real and fairly common" (p. 9). Hochschild (1983a) adds that: "[w]hat they show us is how fragile public civility really is. We are brought back to the question of what the social carpet actually consists of and what it requires of those who are supposed to keep it beautiful" (p. 9).

Generally, many of the studies on emotional labor have reinforced the widely held notion that a relationship exists between expressed emotion by members of an organization and various employee and organizational outcomes. For instance, Parkinson (1991) found that the level of gratuity received by hairdressers was found to be related with expressive ability and openness. Similarly, Tidd and Lockard (1978) have reported that waitresses received more tips when displaying a maximal smile in their initial interaction with customers as opposed to when they exhibited a minimal smile. Rafaeli and Sutton (1987, 1989, 1990) have proposed that in the services context, effectiveness is presumed to partly hinge on the emotional displays of employees. Accordingly, Rafaeli and Sutton (1989) state that: "managerial folklore suggests that organizational profits can be increased by employees who display positive and esteem-enhancing emotions to customers ...." (p. 31). These and many other studies in management (e.g., Ashforth & Humphrey, 1993; Stenross & Kleinman, 1989; Sutton, 1991; Van Maanen & Kunda, 1989) have often implicitly and sometimes explicitly suggested (but not tested) that displayed emotions by a service provider have some form of impact on perceived service quality and/or felt satisfaction with service transactions.

Sociological perspectives on emotion have been extensively exploited in order to shed light on service interactions from a management perspective. Much of the evidence they have generated with respect to emotional displays and service evaluation stems from the use of qualitative methodologies (e.g., participant observation) or is based on exploratory forms of quantitative research. Because of a strong dependence on these approaches, results are considered revealing but remain somewhat anecdotal in nature. For instance, Rafaeli and Sutton (1989) state that:

> [i]n short, the expression of emotion in organizational life is important to study because there is no simple relationship between employee's real feelings on the job and the feelings they present to others. Moreover, *expressed emotions may have*

> *potent effects on the behavior, as well as the cognitions and attitudes, of the people who are the targets of such expressions* [italics added] .... The power of expressed emotions to bring about organizational gains is also important to study because some common managerial assumptions may not be supported by empirical evidence. To illustrate, our recent study of 576 convenience stores revealed weak but significant negative relationships between the display of good cheer by sales clerks (greeting, smiling, eye contact, and saying 'thank you') and store sales (Sutton & Rafaeli, 1988). Better theory and research are needed to help us understand the consequences, as well as the causes, of the emotions expressed by organization members. (p. 3)

The study to which Rafaeli and Sutton (1989) refer can be classified as correlational and exploratory at best. Other management studies such as this one appear to lack many of the characteristics of properly conducted empirical research; and this, especially with respect to validity. Validity issues when raised in reference to such studies are not limited to construct validity but are much more basic in that they often touch upon content validity. Specifically, clear conceptualizations that are reflected in observable measurements which are reliable and valid are characteristics clearly lacking in many studies which have suggested a relation between service evaluation factors and service provider emotional displays (for a discussion of various forms of validity and criteria for establishing each type, see Bagozzi, 1994a; Churchill, 1979; Kirlinger, 1986). For instance, in many management studies of emotional labor, the use of the term *service quality* seems to be rather unspecified and often haphazard and the effects of service providers' emotional displays on service quality often seem to be inferred indirectly from such indicators as sales level or gratuities. Some of these shortcomings are particularly evident in the work of Rafaeli and Sutton who often imply the importance of emotional displays to service quality/evaluation but do not systematically define the consumer response variable in this relationship or test this relationship in an direct, empirical, and valid manner. Nevertheless, their observations remain pivotal to our conceptual development. Similar observations appear throughout the work of Hochschild (1983a), Parkinson (1991), and Mars and Nicod (1984). A proposed link between service providers' emotional displays and service quality that is based on this research appears in Ashforth and Humphrey (1993).

Research in marketing allows for some theoretical specifications and for concise operationalizations to be made with respect to service evaluation factors. However, the

marketing literature with its focus on the customer has evidently somewhat bypassed and not addressed the specific importance of expressed emotion by service providers. Researchers in services marketing have typically taken a broader approach exemplified by various investigations of service quality and satisfaction determinants which do not explicitly include emotional displays as an antecedent variable. Upon closer scrutiny, service providers' emotional displays are reflected and subsumed in many process-related service evaluation determinants discussed in the marketing literature. These include *attitudes and behavior* (Grönroos, 1990), *caring* (Parasuranam et al., 1988; Surprenant & Solomon, 1987), *courtesy* (Bitner et al., 1990; Brown & Swartz, 1989), *credibility* (Parasuranam et al., 1985), *empathy* (Zeithaml et al., 1988; Parasuranam et al., 1994b), *friendliness* (Goodwin & Smith, 1990; Ostrom & Iacobucci, 1995), *personalization* (Bitner et al., 1990; Brown & Swartz, 1989), and *understanding/knowing the customer* (Parasuranam et al., 1985). In one investigation, the Gallup organization asked consumers what "quality in services" meant to them, the answer most often provided involved employee contact skills such as courtesy, attitude, and helpfulness (Gallup Organization, 1988).

Most if not all of the factors enumerated above seem to involve positive interpersonal contact and are emotionally-laden activities. Emotional displays clearly underlie the delivery of these service quality determinants and emerge as a superordinate category which underlies various forms of social behaviors. Most important among service evaluation criteria is perhaps *courtesy* because it is mentioned "in virtually every study of the service encounter either by itself or as contributing to another construct" (Winsted, 1997, p. 343). For instance, Schneider and Bowen (1985) claimed that courtesy seemed to play an important role in formulating clerk and customer perceptions of service quality. Sutton and Rafaeli (1988) have suggested that the concept of displayed positive emotion is related to *employee courtesy*. However, they argue that the latter "is broader than displayed positive emotion, since courtesy may include working quickly, dressing neatly ..., and doing favours for customers ...." (p. 467). Furthermore, they propose that the display of positive emotion refers specifically to presenting a warm outward dimension during a transaction with customers" (p. 467) (i.e., greeting, thanking, smiling and establishing eye contact). Despite the rather

broad meaning usually attached to *courtesy*, Zabava Ford (1995) operationalized *courteous service* as nonverbal immediacy and found that it impacted positively on perceived service quality. This empirical study with its communication studies perspective is the only one we found that has systematically investigated the impact of some emotional markers involved in courtesy (e.g., eye contact) on service quality perceptions.

Service evaluation can also be significantly enhanced via *personalization* (Mittal & Lassar, 1996; Surprenant & Solomon, 1987) and *empathy* (Bitner et al., 1990; Parasuranam et al., 1988). Hochschild (1983a) argued that emotional labor and especially *deep acting* is related to personalization. Much recent research in marketing has stressed the importance of service providers' empathy and understanding to customer satisfaction. For instance, Bitner et al. (1990) took a critical incident approach and reviewed customers' recollections of noteworthy service encounters. Their research has provided some insight into the aspects of memorable and satisfying service provider performances. Results suggested that service providers can act in ways that enhance customers' perceptions of empathy and understanding and thereby lead to satisfying encounters for customers.

In Zeithaml and Bitner's (1996) review of this research, a list of behaviors was proposed which should be enacted and another list of behaviors which should be avoided during the service encounter. They have labeled these behaviors *Do 's and Don 'ts*. We argued in Chapter Six that emotional displays are implicit to many of these behaviors. Moreover, Zeithaml and Bitner's (1996) list of *Do 's and Don 'ts* suggests that positively valenced emotional displays rather than their negative counterparts should be emphasized during the service encounter. In addition, we proposed in Chapter 6 that because of the critical incident nature of this research, these behaviors were important in that the service encounters which involved these behaviors were memorable. Furthermore, Mohr and Bitner (1991) have suggested that mutual understanding between the service provider and the customer is a principal factor impacting customer satisfaction in service encounters. In their study of *personal effort* on the part of service providers, Mohr and Bitner (1995b) stated that:

> to determine the level of personal effort on the part of the service provider, respondents sometimes used behaviors that were likely to be closely related to the employee's actual effort level .... Often, however, they made a greater inferential leap

by judging effort from the *quality of the interaction* [italics added] or from the service outcome. (p. 245)

Miller and Leary (1992) state that: "the manner in which emotions are expressed can substantially determine the outcomes of interactions" (p. 202). There are indications that emotional displays by service providers in service encounters are important to the delivery of high-contact services which also require affect-laden forms of interaction (Adelman et al., 1994; Hochschild, 1983a; Goodwin & Gremler, 1996; Goodwin & Radford, 1993; Goodwin & Smith, 1990; Price et al., 1995; Siehl et al., 1992). For instance, Siehl et al. (1992) have suggested that a service provider's communication of responsiveness, empathy, and assurance was more important to customer satisfaction when in an extended and proxemically intimate service encounter. Price et al. (1995) showed the important effect of open, friendly, and affectively-laden communications on service satisfaction in similar types of service encounters. Hatfield et al. (1994) relate many examples of therapy situations where displayed emotions play a primordial role in relations between therapist and client. Adelman et al. (1994) and Goodwin and Gremler (1996) discuss the importance of some service provider roles as social support providers. In Chapter Six, it was argued that in these situations, communal-type rather than exchange-type norms (see Clark & Mills, 1993; Mills, Clark, & Ford, 1993) were apparently operating. This was taken as suggestive of the greater potential of these occupations to involve norms which guide emotional expression as a part of doing the job.

In general, the research findings reviewed above stress that service evaluation, an essentially intrapersonal phenomenon, is influenced by interpersonal factors in interaction (e.g., Brown & Swartz, 1989; Crosby & Stevens, 1987; Day & Bodur, 1978; Westbrook, 1981). Accordingly, Bitner et al. (1990) state that: "[e]mpirical research in both service quality and service satisfaction affirms the importance of quality of customer/employee interactions in the assessment of overall quality and/or satisfaction with services" (p. 72). In turn, these interpersonal determinants of service evaluation are based on the behavioral repertoires of service providers (Dobni et al., 1997) and these repertoires include expressions of emotion (Ashforth & Humphrey, 1993). Broadly speaking, high customer-contact service

agents are not only asked to demonstrate competence but also *emotional intelligence* (Goleman, 1995) in their dealings with clients.

In emphasizing the role of feelings in interaction, Schwartz and Shaver (1987) hold that social interaction is a "dance of feelings" (p. 237). That emotions are fundamental, all-important, and necessary in interaction is perhaps best captured in Metts and Bowers (1994) who state that:

> [e]motion is a fundamental, potent, and ubiquitous aspect of social life. Affective arousal forms a subtext underlying all interaction, giving it direction, intensity, and velocity as well as shaping communicative choices. Emotion is also one of the most consequential outcomes of interaction, framing the interpretation of messages, one's view of self and other, and one's understanding of the relationship that gave rise to the feeling. It is virtually impossible to encounter a day that is free of emotion .... (p. 508)

In addition, factors related to *emotional expressivity* (see Gross & John, 1995, 1997) and *emotional sensitivity* (see Levenson, 1996) appear to be involved in smoothing the moment to moment exchanges in interaction by potentiating synchrony and mutual entrainment (e.g., Bernieri, 1988; Bernieri et al., 1988; Davis, 1982; Hatfield et al., 1994). Moreover, many of the interpersonal factors (dispositions) used to judge individuals in interaction can be positioned within a two-dimensional space in which variation is explained with respect to the granting of *status* (agency) and the granting of *love* (communion) (see Wiggins & Trapnell, 1996). The behaviors which give rise to impression formation based on interpersonal dispositions thus involve actions which are heavily dependent on the expression of emotion (Knutson, 1996; Myllyniemi, 1997; Wiggins & Trobst, 1997). Overall, emotional displays thus emerge as not only underlying the delivery of various components of service but also as a primordial aspect in interpersonal interaction in general (Andersen & Guerrero, 1998; Goleman, 1995; Metts & Bowers, 1994).

Service quality is a cognitive judgment (Oliver, 1993a, b, 1994, 1996). As in the case of appropriateness judgments (see hypothesis H1a), the role of social context in evaluations of the expressive behavior of a provider in terms of service quality components appears primordial. Norms or expectations clearly enable the observer to consciously judge whether the valence of a display is normative at a given moment in a particular situation (Averill,

1980b, 1984; Kemper, 1991, 1993). Hence, social context considerations appear as a moderator of perceptions of provider behavior in relation to service quality evaluations.

Grönroos (1982, 1983, 1990) provided a distinction between *functional* and *technical* service quality. It was argued above that the notion of emotional labor appears clearly related to the delivery of *courtesy*, *friendliness*, *empathy*, and *personalization*. Research in marketing has suggested that because these determinants are process-oriented, they contribute more to the functional domain of service quality rather than to its technical counterpart (Asubonteng et al., 1996; Bitner et al., 1990, 1994; Grönroos, 1982, 1983, 1990; Mittall & Lassar, 1998; Oliver, 1996; Parasuranam et al., 1985; Surprenant & Solomon, 1987; Woodside et al., 1989). Definitions of the functional aspect of service quality revolve around and specify the importance of the manner in which the service is delivered or *how* it is rendered (Grönroos, 1982, 1983, 1990; Lehtinen & Lehtinen, 1982; Mohr & Bitner, 1995b; Parasuranam et al., 1985; Swartz & Brown, 1989). Functional service quality is generally characterized as being of an expressive and relational nature and is therefore closely related to the service provider-customer interaction (Grönroos, 1982, 1983, 1990). It has been referred to as *process quality* (Parasuranam et al., 1985) or *interactive quality* (Lehtinen & Lehtinen, 1982).

On the other hand, the technical aspect of service quality is concerned with the output of the encounter and represents *what* the customer is actually left with following service delivery (Grönroos, 1982, 1983, 1990; Lehtinen & Lehtinen, 1982; Parasuranam et al., 1985). Technical service quality has been referred to as *outcome quality* (cf. Parasuranam et al., 1985; Johnson & Zinkhan, 1991) or *physical quality* (Lehtinen & Lehtinen, 1982). In certain services, the customer is unable to immediately evaluate the technical aspect of a service (e.g., technical competence of a repairman; treatment programme suggested by a physician). Hence, in these circumstances a greater reliance is expected on aspects of functional quality in attempts to evaluate a service provider (Asubonteng et al., 1996; Babakus & Mangold, 1992). Emotional labor appears more closely related to functional service quality than to technical service quality.

Studies which have investigated service evaluation have often not been limited to factors which presumably underlie service quality. Many have concurrently assessed level

of felt satisfaction (e.g., Bitner, 1990; Cronin & Taylor, 1992; Oliver, 1993b; Taylor & Baker, 1994). Satisfaction has emerged as an arguably distinct (see Taylor & Baker, 1994) and more affect-laden (see Babin & Griffin, 1998; Oliver, 1993b, 1994; Westbrook, 1987; Westbrook & Oliver, 1991) form of service evaluation than service quality. It is clearly linked to elements of the interaction between provider and customer (Solomon et al., 1985). The following hypotheses are therefore suggested:

H5a: In the service encounter, the interaction between the valence of emotional displays and the context in which they are expressed will explain more variance in service quality ratings than the direct influences of either valence or context alone.

H5b: In the service encounter, the interaction between the valence of emotional displays and the context in which they are expressed will be significantly related to functional service quality but not to technical service quality.

H5c: In the service encounter, the interaction between the valence of emotional displays and the context in which they are expressed will explain more variance in felt satisfaction ratings than the direct influences of either valence or context alone.

H5d: In the service encounter, appropriate emotional displays will be positively related to functional service quality and satisfaction; and conversely, inappropriate emotional displays will be negatively related to functional service quality and satisfaction.

9.3.2 Displays of Categorical Emotions, the Delivery of Prototypical Scripts, and a Relational Orientation in the Service Encounter

Displays of *compassion*, *caring*, *warmth*, *concern*, and *empathy*[103], are deemed especially important to the delivery of service in medical occupations (Frankel, 1995; Lazare, 1989; Novack, 1987; Peabody, 1927; Rogers, 1975) and those which more generally involve the provision of social support (Adelman et al., 1994; Goodwin & Gremler, 1996; Goodwin & Radford, 1993; Goodwin & Smith, 1990; Trobst et al., 1994; Wiggins & Trobst, 1997). These process-related factors appear to be highly affect-laden.

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Eisenberg and Miller (1987) define *empathy* as "an affective state stemming from apprehension of another's emotional state or condition and which is congruent with it" (p. 292) (see also Gruen & Mendelsohn, 1986; Levenson & Ruef, 1992). The term *empathy* is used here in this way. It is differentiated from the service quality dimension of the same name (see Parasuranam et al., 1988) which was discussed in the previous section.

In view of Ekman's (1984, 1999) arguments on the defining characteristics of basic emotions, these affective states cannot be regarded as such. They are nowhere listed as fundamental emotions (see Ekman, 1984, 1992b, c, 1999; Izard, 1971, 1977, 1992). Proponents of basic emotions have engaged in various attempts at demonstrating that each involves a distinct pattern or signature in terms of ANS activity (e.g., Levenson, 1992). Overall, these attempts have yielded mixed results (Cacioppo, Berntson, & Klein, 1992; Thompson, 1988; Zajonc, 1998). In light of *palette* theories of emotion (see Scherer, 1984a; for examples see Ekman & Friesen, 1975; Tomkins, 1963; Oatley & Johnson-Laird, 1987; Plutchik, 1962, 1984), some of these attributes may perhaps be taken as non-basic affect-laden states which are combinations, blends, or mixes of basic emotions (cf. Ortony & Turner, 1990). For instance, Plutchik (1984) proposed that *love* was a combination of *joy* and *acceptance*. In a like vein, *caring* for instance may perhaps be taken to involve a blend of two or more basic emotions. However, these interpersonal service attributes seem to involve more than just a blend of basic or fundamental affective states and more than a basic categorization of emotion over a positive-negative continuum (i.e., valence). In fact, the conveyance of these attributes appears to suggest social context considerations. In other words, the valence and category of the emotion which underlies for instance displayed *caring* or *empathy* may shift from positive to negative or from one category to another given particular situations but the display conveyed may still be viewed as *caring* or *empathetic* and hence be labeled accordingly. Gruen and Mendelsohn (1986) hold that:

> [r]esponsiveness to the emotional state of another plays a fundamental role in defining and shaping patterns of human interaction. This responsiveness may be essentially cognitive in nature, as when we recognize the meanings of various emotional displays, or may entail, as well, an emotional response of one person to the emotion perceived in another-and, specifically, the response of empathy and sympathy .... empathy as an emotional response entails a correspondence of positive or negative tone ... or a matching of affect, between an observer and the person being observed .... Sympathy, on the other hand, does not involve a reproduction of the emotion perceived in another but is rather, a response of compassion or concern evoked by the plight of another. Unlike empathy, which may be manifest in any emotion, sympathy is a specific emotional state. (p. 609)

Prototypical theories of emotion are perhaps best suited at describing the conveyance

of these interactional-relational attributes of service. These theories tend to be cognitively oriented. Prototypical approaches to emotion imply that "prototypical situations serve as antecedents of different emotions" (Scherer & Ceschi, 1997, p. 211). More specifically, prototypes "serve as a template for understanding and generating one's own emotion behavior as well as for making inferences about the motivations and feelings of others during social interactions" (Metts & Bowers, 1994, p. 514). Exemplar prototypical emotion scripts typically involve implicit considerations of social context (e.g., Averill, 1982; Fischer et al., 1990) and a behavioral intention (e.g., Plutchik, 1984; see also Fridja, 1986, 1987, 1988; Fridja et al., 1988; Russell, 1997). An example of a prototypical script involves appropriate grieving and displays of sadness at a funeral.

The prototypical approach is perhaps best exemplified by the work of Schwartz, Shaver, and Fischer (e.g., Fischer, 1991; Fischer et al., 1990; Shaver et al., 1987, 1992). For instance, Fischer et al. (1990) defined emotion as a "discrete, innate, functional, biosocial action and expression system" (p. 84) and held that it was determined by three distinct categorical components organized in a hierarchy constituted of a *superordinate level* (i.e., positive or negative); (b) *basic components* (i.e., love and joy are basic components which are also positive emotions whereas anger, sadness, and fear are basic components which are also negative emotions); and (c) *subordinate components* which describe *prototypical scripts*. Prototypes represent *episodic schema* (Metts & Bowers, 1994). This is particularly evident in Fischer et al. (1990) where particular scripts are associated to particular situations and engage particular types and categories of emotion. That prototypical theories propose the unfolding of specific scripted sequences reflective of specific affective states which, in turn, are elicited and expressed in a given situation (see Fischer, 1991) generally rejoins the script-theory perspective on the service encounter (see Ashforth & Humphrey, 1993; Smith & Houston, 1983; see also Zurcher, 1985).

The use of these prototypical scripts can be extended from single episodes of service (service encounters) to a more pervasive relational-orientation on the part of a client and a

service provider intent on establishing a service relationship[104]. The literature on relations in for instance therapy-oriented services (see Cohen-Cole, 1991; Frankel, 1995; Hearn, 1987; James, 1989; Lazare, 1989; Novack, 1987; Peabody, 1927; Rogers, 1975; Squier, 1990; see also Goodwin & Radford, 1993; Hochschild, 1983a; Shostack, 1987) does not only suggest that emotional displays contribute importantly to the conveyance of such service attributes as *caring*, *compassion*, and *empathy* but also that the delivery of these attributes results in better relations between patient and professional. A clear relational-orientation is suggested by this literature in that it often revolves around multiple encounters between client and service provider and the usefulness of appropriate behaviors on the part of a service provider in establishing and maintaining a relationship with a client.

It was argued in Chapter Six that certain high-contact services involve behavioral norms and rules which are similar to those which pervade communal[105] rather than exchange relationships (for discussions of distinctions between the two types of relationships, see Batson, 1987; Batson & Oleson, 1991; Clark, 1984; Clark & Mills, 1979, 1993; Clark et al., 1986, 1987, 1993; Clark & Taraban, 1991; Mills & Clark, 1982); and that the normative aspects of what constitute communal relationships appear closely related to what Grönroos (1982, 1990) has labeled *functional service quality* or the manner in which the service is delivered.

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Service encounters are to be distinguished from service relationships. Service relationships involve repeated contact with the same provider whereas service encounters "occur when the customer interacts with a different provider each time" (Gutek et al., 1999, p. 218).

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The most important distinction between exchange and communal relationships "is based on the rules and norms that govern the giving and receiving of benefits" (Clark & Mills, 1993, p. 684). Exchange relationships, such as the economic exchange of products for money, involve the exchange rule of "a specific benefit is owed in return for a benefit received" (p. 686). Moreover, benefits are provided in exchange relationships with "the expectation of receiving a comparable benefit in return or as repayment for a benefit received previously" (Clark & Mills, 1993, p. 684). In other words, a form of record keeping (Clark et al., 1986) and equity underlie exchange relationships. On the other hand, communal relationships tend to be pervasive and involve, for instance, relationships between parents and children, between close friendships, and romantic circumstances (Clark & Mills, 1979). However, weaker communal relationships are commonly observed with strangers (Clark & Mills, 1993) and communal relationships are not necessarily long-term relationships (Clark et al., 1986).

In some services, the desire to establish and maintain a relationship with a client or patient clearly entails behaviors which suggest support, closeness, friendliness, a level of appropriate intimacy, concern, and a feeling of responsibility for the welfare of the client or patient (see Adelman et al., 1994; Arnould & Price, 1991; Goodwin & Gremler, 1996; Goodwin & Radford, 1993; Goodwin & Smith, 1990). These behaviors clearly underlie communal relationships (Clark, 1984; Clark & Mills, 1993; Clark et al., 1986, 1987, 1989; Clark & Taraban, 1991; Mills & Clark, 1982). Hence, the delivery of certain high-contact services involves emotional labor and is guided by the rules and norms of communal relationships in that the provider must at least give the impression of responding to the needs of the client through empathy, caring, etc. However, in other occupations, emotional labor not only revolves around the norms of communal relationships but is also strategically directed at establishing a satisfying relationship per se with the client or patient (e.g., a divorce lawyer whose work role involves providing support to a client over multiple encounters or a physician who is treating a patient for chronic illness).

Two potentially distinct conceptual dimensions which are related to the use of emotional displays in high-contact service encounters emerge from the discussion above. One involves the *conveyance* via emotional labor of a series of attributes deemed important and normative in certain high-contact service occupations. *Conveyance* is clearly and generally related to Hochschild's (1983a) work on single service encounters. The other suggests a *responsiveness* on the part of the provider. Because the latter involves consideration of feedback from the consumer and more importantly, a desire to establish a working relationship or partnership, it suggests a relational orientation and the use of emotional labor over multiple encounters which constitute a service relationship. The following hypotheses are suggested:

H5e: In the service encounter, the discrete category of emotional displays and social context considerations will contribute to consumer perceptions of conveyance of the service attributes caring, interest, and empathy.

H5f: In the service encounter, the discrete category of emotional displays and social context considerations will contribute to consumer perceptions of responsiveness by the provider.

H5g: In the service encounter, appropriate emotional displays will be positively related to perceptions of conveyance of the service attributes caring, interest, and empathy; and conversely, inappropriate emotional displays will be negatively related to consumer perceptions of conveyance of the service attributes caring, interest, and empathy.

H5h: In the service encounter, appropriate emotional displays will be positively related to perceptions of responsiveness; and conversely, inappropriate emotional displays will be negatively related to consumer perceptions of responsiveness.

9.4 Impression formation of the Service Provider

9.4.1 Attribution and Impression Formation

An alternate way to assess the importance of emotional displays in service evaluation (and especially in the evaluation of the provider) which tends to bypass the involvement of emotion rests in the impression formation paradigm. This perspective is mainly cognitive and lies within the realm of social cognition (Kunda, 1999). Classic models of person perception specify how individuals draw inferences about another person following interaction with that person (e.g., Heider, 1958; Jones & Davis, 1965; Jones & McGillis, 1967; Kelley, 1967; Kelley, 1971a). Figure 13 represents a proposed model of impression formation in the service encounter.

Weiner's (1985a, 1986) appraisal theory of emotion holds that failure or unmet expectations can trigger an attribution process which results in discrete emotion. The role of attribution as a mediator also emerges in the process of person perception (Graham & Brown, 1988; Heider, 1958; Jones & Davis, 1965; Jones & McGillis, 1978; Kelley, 1967; Trope, 1989). For instance, Graham and Brown (1988) state that: "[t]he use of causal information to make judgments about others is a fundamental feature of social life" (p. 873). Evidence suggests that attributional processes tend to occur spontaneously during person perception or impression formation (Bassili & Smith, 1986; Fiske & Taylor, 1984) and especially after perceptions of unmet expectations in interaction (Burgoon, 1993; Burgoon & Hale, 1988; Burgoon & LePoire, 1993; Burgoon et al., 1995).

Recent work has suggested that emotional displays can result in inferences rooted in attribution and that an observer is more likely to engage in dispositional inferences after

expression of inappropriate emotion by an actor (Karasawa, 1995; Liu et al., 1992). Liu et al. (1992) hold that: "a link between negative affect and a negative personal evaluation, or a negative emotion-to-disposition correspondence, appears more likely than an association between positive affect and a positive dispositional inference" (p. 614). It was suggested above that positive emotional displays seem in fact to be the norm in a wide variety of service occupations (see Hochschild, 1983a; Parkinson, 1991; Schneider & Bowen, 1985; Tidd & Lockard, 1978) and are therefore part of the prescribed service provider role and script in these occupations. A good example rests in the training provided to employees at Disneyworld (see Tyler & Nathan, 1985). More generally, Burgoon and LePoire (1993) argue that there is a norm for initial encounters between people. They hold that: "[i]n the case of initial interactions with unfamiliar others, one pervasive goal is to have a pleasant interchange. Indeed, the general cultural expectation is for initial encounters to be smooth, pleasant, and moderately involving ..." (p. 73). During a service encounter which requires expressions of good cheer, inappropriate negative emotional displays by a service provider will perhaps tend to be perceived as out-of-character in terms of the service provider role. They may thus result in a dispositional attribution on the part of the customer. On the other hand, a situational attribution appears likely when the provider expresses normative emotion.

Additional evidence that a dispositional attribution will ensue in the event that a service provider will display inappropriate emotions and that a situational attribution will follow when a service provider will convey appropriate emotions rests in the basic tenets of various classic theories of attribution. For instance, Jones and Davis (1965) proposed that certain cues are used in order to resolve ambiguities in the causal inference process. These cues include *choice*, *social desirability*, *social role*, and *prior expectations*. *Choice* refers to whether the individual is socially constrained to behave in a particular manner or whether this behavior results from choice. Behaviors low on *social desirability* allow one to infer more confidently that an underlying disposition is responsible for the behavior. Whether a behavior is or is not part of a *social role* also cues the perceiver as to whether a disposition is guiding the behavior. *Prior expectations* are likely to develop when individuals have had prior experiences with the same actor (see Jones et al., 1961; Jones & McGillis, 1976). For

instance, if a service provider is perceived as acting out of choice, exhibits emotional displays that are low on social desirability (e.g., inappropriate negative emotional displays), and/or that are not part his role as a service provider; then, according to Jones and Davis (1965), it is likely that his/her behavior will be attributed to an internal disposition rather than a situational factor (e.g., 'the work role'). These factors therefore seem especially relevant to establishing causal inferences about a service provider's normative and non-normative emotional behavior.

Moreover, Kelley's (1971b) *discounting principle* suggests that people should make "less extreme attributions to the dispositional qualities of an actor the more there are situational pressures also present that could have compelled the observed behavior" (Kulik, Sledge, & Mahler, 1986, p. 587). Situational pressures to engage in emotional labor are well documented in Hochschild (1983a) and are an obvious part of the work role in various service occupations where organizations invest many resources to train their employees to behave in an appropriate and personalized fashion (Sutton & Rafaeli, 1988). However, emotional labor can be taxing (Hochschild, 1983a). Personal reasons to disengage from emotional labor can involve fatigue, burnout, and an inability to courteously deal with irate customers. Keeping up smiles when attempting to regain control over a situation which would normally require the expression of negative emotion (e.g., in dealing with a disrupting airline passenger) may lead to a situational attribution. Dropping the smiles and expressing outrage at the same passenger may result in a dispositional attribution.

Furthermore, Nisbett and Ross (1980) have suggested that a behavior that is perceived as due to a characteristic of members of a particular class of people (i.e., service providers who are supposed to display positive emotions) is unlikely to be perceived as due to a characteristic of a person. Deviant behaviors (displays Category 4 in Figure 9) are typically presented as inappropriate. They tend to carry negative consequences on the self-concept, self-presentation, and successful role performances (Backman, 1985; Goffman, 1959; Hogan et al., 1985; Taylor & Crocker, 1981). Accordingly, Tedeschi and Norman (1985) hold that: "[v]iolating norms or rules projects an identity of the actor as immoral and bad person" (p. 300). The following hypotheses are suggested:

H6a: In the service encounter, the interaction between the valence of emotional displays and the context in which they are expressed will explain more variance in ratings on the locus dimension for attributions made with respect to provider emotional displays than the direct influences of either valence or context alone.

H6b: In the service encounter, customers or clients will attribute a service provider's appropriate (inappropriate) emotional displays to situational (dispositional) factors.

9.4.2 Emotional Expressivity as a Trait Inference

Facial expressions of emotion have been presented as spontaneous reflections of internal emotional states (Darwin, 1872; Ekman, 1994). However, recent evidence suggest that they also convey information from which an observer may infer cognition (Ellsworth, 1991; Scherer, 1992), social intent (Buck, 1984, 1988a; see also Zajonc, 1998), and personality (Karasawa, 1995; Knutson, 1996; Myllyniemi, 1997). McHugo et al. (1991) state that: "[e]xpressive displays of emotion are information-laden ...; they provide dispositional and situational information ..." (p. 19). Knutson (1996) holds that: "[s]ince emotional expressions purportedly convey interpersonal information, one might extrapolate that they should have an especially potent impact on interpersonal trait inferences" (p. 166). Impression formation based on dispositional inferences is an important outcome of the dynamics of interpersonal behavior (Asch, 1946; Wiggins & Trapnell, 1996) and represents a routine understanding of social events (Winter & Uleman, 1984).

Coyne (1976) proposed that depressives tend to evoke negative feelings in those who interact with them and that this negative mood leads to cessation of social interaction. Karasawa (1995) suggested that when an emotion is communicated by person A to person B, person B will begin a causal attribution process which determines person B's affective reactions and behavioral intentions toward person A. Karasawa (1995) further suggested that displayed negative emotions may be ascribed to personal characteristics and may result in avoidance. He states that:

> [w]hen an emotion is attributed to dispositional factors within the person, negative personalities or attitudes are inferred. These inferences may further lead to a negative evaluation of the person. In addition, the person rather than the situation, is regarded as responsible for the negative emotional reactions. These inferences and perceptions are likely to elicit negative affects and unfavorable behavioral reactions, such as

irritation and rejection. (p. 457)

Such a process is particularly evident with depressed people who tend to exude negativity over a battery of indicators. In fact, depression is partly characterized by the display of negative emotions and is viewed as an extreme and pathological form of the emotion *sadness* (Coyne, 1976; Power & Dagleish, 1997; Stearns, 1993). The consequences of emotional labor can include alienation, burnout, stress, and emotional numbness (Hochschild, 1983a; Maslach, 1982; Rafaeli, 1989b; Sutton & Rafaeli, 1988). These states are closely associated to the objective signs and the symptomatology (patient's subjective impressions) indicative of a variety of affective disorders which include depression and its less intense variants (see Dunner, 1990). Typically, depressives tend to be blamed by others for their condition (e.g., Coates & Wortman, 1980). In other words, a dispositional rather than a situational causal attribution is made for displays which suggest a negative emotional state.

Despite the presumed reliance on causal cues in evaluation, research in social cognition has suggested that individuals may rarely engage in *complex* attributional processes when they make social judgments (e.g., Fiske & Taylor, 1984). The use of causal cues appears to be rather selective and directed at meeting the goals of the evaluative task at hand (Graham & Brown, 1988). Although, the service encounter represents a task or goal-oriented interaction, *emotional expressivity* or *expressiveness* (Gross & John, 1995, 1997; King & Emmons, 1990; Kring et al., 1994) is taken here to represent a simpler, more global, and more direct assessment (i.e., cognitive evaluation) of the provider than a complex evaluative process based on a dimensional perspective on attribution (see Fiske & Taylor, 1984; Russell, 1982; McAuley et al., 1983; Russell & McAuley, 1986) or one based on a set of specific interpersonal trait inferences typically arranged in a circular order (see Knutson, 1996; Myllyniemi, 1997). Much research suggests that trait inferences are spontaneous (e.g., Carlston & Skowronski, 1994; Carlston, Skowronski, & Sparks, 1995; Winter & Uleman, 1984; for a review, see Uleman, Newman, & Moskowitz, 1996) and that they can be automatic and so effortless and unintentional that people draw them while engaged in another task (Gilbert, 1989; Trope & Alfieri, 1997; Winter, Uleman, & Cunniff, 1985).

Assessments of *emotional expressivity* have appeared particularly useful and common

in clinical settings (see Kring et al., 1994). However, their use has also be extended to person perception in a variety of other settings where psychopathology is not presumed or assessed (e.g., Gross & John, 1997). In general, emotional expressivity represents a disposition or an individual difference variable (King & Emmons, 1990; Kring et al., 1994; Gross & John, 1995, 1997; for a general discussion of individual difference traits; see Baron & Kenny, 1986). Some definitions of expressivity have tended to be more specific than others and include such factors as the "desire to excite and captivate others" (Friedman et al., 1980, p. 348). On the other hand, the definition provided in Kring et al. (1994) implies a less specific domain and emphasizes a general disposition: "*emotional expressiveness* refers simply to the outward display of emotion, regardless of valence (positive or negative) or channel (facial, vocal, or gestural)" (p. 934). Their perspective on expressivity is essentially unidimensional. Gross and John (1997) also define expressivity rather broadly: "an individual is emotionally expressive to the extent that he or she manifests emotional impulses behaviorally" (p. 435). However, they provide a three-dimensional conceptualization and operationalization in which two dimensions are related to the valence of expressed affect: *positive* and *negative expressivity*.

Although some situational variability in perceived expressivity has been demonstrated (see Gross & John, 1997), emotional expressivity remains a stable and enduring trait on which impressions of others can be based. Variations in social context should therefore have no or very little effect on judgments of service provider expressivity. Hence, a dispositional inference based on emotional expressivity reflects well the purist psychological perspective on emotion which holds that emotion is a private (intrapersonal) occurrence rather than a social phenomenon (Kemper, 1991, 1993), an interpersonal occurrence (see Miller & Leary, 1992; Parkinson, 1996; Zajonc, 1998), or one which is a function of social context (Fridlund et al., 1990, 1992; Hess et al., 1995; Hoover-Dempsey, Plas, & Strudler Wallston, 1986; Jakobs et al., 1997; Labott et al., 1991; Manstead, 1991; Parkinson, 1995; Plas & Hoover-Dempsey, 1988; Way & Masters, 1996). In light of Gross and John's (1995, 1997) conceptual definition and theoretical stance on emotion which stresses somatic processes (see Figures 10a and 10b), emotional expressivity also appears

related to the spontaneous (impulsive-driven rather than contrived) displays which underlie *deep acting* and *emotional deviance* (see Hochschild, 1983a). The following hypotheses are suggested:

H7a: In the service encounter, the main effect of valence of emotional displays will explain more variance in dispositional judgments of provider expressivity than the main effect of social context or their interaction.

H7b: In the service encounter, negative displays of emotion by the provider will result in a dispositional judgment of negative expressivity; and conversely, positive displays of emotion by the provider will result in a dispositional judgment of positive expressivity.

H7c: In the service encounter, negative displays of emotion by the provider will result in negative behavioral intentions toward the provider; and conversely, positive displays of emotion by the provider will result in positive behavioral intentions toward the provider.

9.5 Provider Emotion, Consumer Emotion, and Service Evaluation

This section builds on previous hypotheses and relates consumer emotion to the sequencing of service evaluation factors. Three essential assertions guide our theoretical development:

(a) an emotion process based on the mechanism of primitive emotional contagion is likely to operate in uneventful encounters where no failure in service occurs (see H4a);

(b) a cognitive emotion process is likely in eventful encounters where some form of failure in service occurs (see H4b); and

(c) the sequence of service evaluation factors is determined by how emotion is generated in the consumer rather than by level of aggregation.

These propositions entail two alternate structural equation models (SEMs). The models appear in Figures 31 and 32 of Chapter Ten. Each model implies a different consumer emotion process in interaction which then impacts on service evaluation factors whose sequence may hypothetically vary with respect to how emotion is generated. The model in Figure 31 clearly reflects a cognitive perspective on emotion and clearly accommodates the sequence of service evaluation factors proposed in Cronin and Taylor (1992) which is also endorsed in Oliver (1993b, 1996). The alternate model implies that consumer emotion is a direct outcome of emotional contagion (Hatfield et al., 1994; Öhman, 1999) and thus

minimizes attentive cognitive involvement and stresses the occurrence of automatic processes. Hence, this second model reflects a sequence of evaluation factors which reverses that found in Cronin & Taylor (1992) in that socially-induced affect is shown to impact cognitive evaluation. This alternate sequence reflects what has been referred to as *affect-congruent* judgment or *hot cognition* by some psychologists (see Kunda, 1999). Since the seminal work of Isen, Shalker, Clark, and Karp (1978) which demonstrated that antecedent affect can color perceptions of performance, a slew of studies has converged on this finding (for reviews, see Forgas, 1995, 1999; Isen, 1984, 1987, 1999; Schwarz & Clore, 1996). In essence, this sequence can be taken to generally reflect that found in Bitner (1990) while explicitly addressing emotion. Another difference in content with Bitner's (1990) sequence involves service quality. It is suggested here that a simpler form of cognitive evaluation will occur which is based on automatic trait inferences.

The proposed models address emotion from a dimensional perspective. Facial feedback is one underlying process of the proposed mechanism of primitive emotional contagion (Hatfield et al., 1994). This process has been more successfully investigated from a dimensional rather than a categorical perspective on emotion (Burgoon, Buller, & Woodall, 1996; McIntosh, 1996; Winton, 1986). Similarly, much of the research which has focused on how emotion affects cognition points to the importance of the valence of affective states (e.g., Clore et al., 1993; Desteno et al., 2000; Forgas, 1995, 1999; Isen, 1999; Schwarz, 1990). Accordingly, the impact of affective states on various forms of cognition is typically assessed with respect to positive (pleasant) or and negative (unpleasant) affective states. On the other hand, the cognitive perspective on emotion has relied on categorical operationalizations because it holds that particular sets of appraisal dimensions can serve to specify discrete emotional states (see Ellsworth, 1991; Lazarus, 1991a; Scherer, 1997, 1999; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987; Weiner, 1985a, 1986). From a prototypical perspective, valence is a broader category within which discrete emotions fall (e.g., Fischer et al., 1990). Because it is less restrictive in its criteriality than a categorization based on discrete emotional states and because it encompasses these states, a categorization of emotion based on a dimensional approach appears better suited for the task at hand.

Finally, the known links in each model are annotated with references. What makes these models truly unique is not a particular link or series of links but rather the fact that each resides in a distinct emotion process and whether evaluation is automatic or controlled. In sum, we argue that the sequence of evaluation factors depends on how emotion is generated in the service encounter rather than level of aggregation (cf. Bitner & Hubbert, 1994; Rust & Oliver, 1994; Taylor & Baker, 1994).

9.5.1 Proposed Sequences of Service Evaluation Factors in Past Research

It was argued in Chapter Eight that perceived service quality emerges as an attentive (conscious), intentional, effortful, and hence, an evaluation which involves controlled cognitive processing. In fact, the conceptual and operational treatments of service quality clearly imply that it is of a purely cognitive nature. Specifically, the expectancy disconfirmation paradigm which underlies SERVQUAL (Parasuranam et al., 1988), the most popular model of service quality, points clearly to a conscious and propositional type of judgment which involves much mental calculus (i.e., effortful use of cognitive resources) along with evaluative intent, and thus presumes cortical functioning and attentive perception. Other competing models of service quality offer varying emphases on actual perceptions of performance and/or expectancies and/or importance of attributes (for a review, see Taylor, 1995). Nevertheless, they also clearly suggest varying but still similar levels of conscious awareness, mental calculus, and hence controlled processing. The remnants of the cognitive revolution in marketing are obvious in this literature.

On the other hand, the conceptual status of satisfaction vis-à-vis that of service quality is rather ambiguous (Bitner & Hubbert, 1994; Holbrook, 1994; Rust & Oliver, 1994; Taylor & Baker, 1994). Some have suggested that service quality represents a cognitive judgment whereas satisfaction is a more affect-laden evaluation (Dabholkar, 1993; Iacobucci, Ostrom, Braig, & Bezjian-Avery, 1994; Oliver, 1993a, 1994, 1996; Rust & Oliver, 1994;Westbrook & Oliver, 1991). In many instances, satisfaction is treated as an outcome of purely cognitive antecedents such as varying forms of expectancy disconfirmation (e.g., Bitner, 1990; Spreng et al., 1996; Tse & Wilton, 1988) or product and service-provider attribute evaluations (e.g., Mittal et al., 1999). In other instances, it is presented as an

outcome of affective antecedents and given affective status (Mano & Oliver, 1993; Oliver, 1989; Westbrook, 1987; Westbrook & Oliver, 1991). This perspective represents a substantial deviation at the conceptual level from typical work on satisfaction which has relied on a *comparison to standards* or the *expectancy disconfirmation* paradigm (see Iacobucci et al., 1994; Oliver, 1996). It also represents an effort at explicitly addressing and incorporating affect in service evaluation (see Oliver, 1994).

Behavioral intention toward the provider or firm has also emerged as an important indicator of service evaluation (Anderson et al., 1994; Boulding et al., 1993; Cronin & Taylor, 1992; Garbarino & Johnson, 1999; Mittal et al., 1999; Oliver, 1993a; Taylor & Baker, 1994; Zeithaml et al., 1996; for retail settings, see Swinyard, 1993). Both service satisfaction and quality appear to play critical roles in the formation of intentions toward the provider (Boulding et al., 1993; Bolton & Drew, 1991a; Cronin & Taylor, 1992; Oliver, 1993a; Taylor & Baker, 1994; Zeithaml et al., 1996). The three post-purchase evaluation factors are likely to be positively correlated (Boulding et al., 1993; Oliver, 1996; Cronin & Taylor, 1992; Taylor & Baker, 1994; Woodside et al., 1989).

Although some controversy has emerged in the causal order of service quality and satisfaction (Iacobucci et al., 1994; Oliver, 1993a), the issue has been presented as one that hinges upon level of aggregation or whether one or the other construct is assessed at a global or encounter-specific level (Rust & Oliver, 1994; Taylor & Baker, 1994). Typically, if satisfaction is taken to represent the aggregate, the literature holds that the three evaluation factors are likely to be causally related in the following sequence: *service quality at the encounter level -> global satisfaction -> behavioral intentions* (e.g., Cronin & Taylor, 1992; Oliver, 1993a, 1996; Spreng et al., 1996; Spreng & McCoy, 1996; Taylor & Baker, 1994; Woodside et al., 1989). On the other hand, if service quality is taken as the aggregate, then the following sequence is suggested: *expectancy disconfirmation -> encounter specific satisfaction -> global service quality -> behavioral intentions* (e.g., Bitner, 1990; Mittal et al., 1999).

Literature in psychology points to two general causal sequences in the relation between cognition and affect. One essentially reverses the other. These sequences clearly

parallel the two general sequences suggested in the services evaluation literature. Cognitive theories of emotion clearly position cognition (appraisals or judgments) as an antecedent to affect (e.g., Lazarus, 1991a; Roseman, 1991; Scherer, 1993, 1997, 1999; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1985a, 1986; for reviews, see Cornelius, 1996; Ellsworth, 1991; Parkinson & Manstead, 1992; Scherer, 1988b, 1999). These models suggest that emotion can be inferred from cognitions (see Scherer, 1993). Holbrook and Batra (1987a) argue that the involvement of consumer behaviorists in the area of affect has displayed variations of the basic C-A-B paradigm. This paradigm implies that cognition (C) determines affect (A), which, in turn, determines behavior (B). In Bagozzi et al. (1999), the validity of this general sequence is clearly endorsed in that cognitive models of emotion are positioned as the dominant in psychology and reliance on these models is clearly suggested in the area of marketing. If we presume that satisfaction is affect-laden (see Oliver, 1989; Westbrook, 1987; Westbrook & Oliver, 1991) and that service quality represents a purely cognitive evaluation, this paradigm can be taken to underlie the sequence of service evaluation factors proposed in Cronin and Taylor (1992).

Alternatively, a large body of literature clearly suggests that positive and negative affective states carry an impact on various forms of cognitive functioning (e.g., Clark & Isen, 1982; Clore, Schwarz, & Conway, 1993; Desteno et al., 2000; Forgas, 1991a, b, c, 1992, 1994, 1999; Isen, 1984; Izard et al.,1993; Johnson & Tversky, 1983; for reviews, see Forgas, 1995; Isen, 1987, 1999; Schwarz & Clore, 1996; Wegener & Petty, 1996). This latter group of studies clearly suggests that "the cognitive system is subservient to the affective system" (Pervin, 1984, p. 141) and that cognitions can be inferred from emotion. This alternate sequence appears in general defiance to the cognitive orientation which typically permeates models of consumer behavior and that has resulted in affect being blended onto cognitive frameworks in this area (Cohen & Areni, 1991). If satisfaction is given affective status (see Oliver, 1989; Westbrook, 1987; Westbrook & Oliver, 1991) and service quality is endowed with full cognitive status, then the sequence *affect -> cognition* generally reflects the sequence of evaluation factors suggested in Bitner (1990).

9.5.2 Eventful Encounters: A Sequence of Service Evaluation Factors Rooted in a Cognitive Perspective on Emotion

In the event that a cognitive perspective on emotion is valid and applicable to the service encounter, it was argued in Chapter Eight that the following basic sequence appears to provide a conceptually appealing representation not only of the relations among service evaluation factors but also of the relations of emotion to these factors: *Encounter Specific Service Quality* (as cognitive appraisal) -> *Attribution* (as one form of increased cognitive complexity)[106] -> *Emotion* -> *Global Satisfaction* -> *Behavioral Intentions*. Although this sequence appears quite justifiable if we presume that satisfaction is the aggregate, it may hold at the encounter specific level because this sequence appears coherent with that generally proposed by appraisal theories of emotion (*cognition -> emotion*); and this, as long as we presume that service quality is a purely cognitive evaluation (see Oliver, 1993a, b, 1994; Taylor, 1995) and that satisfaction represents an affect-laden reaction to a service encounter (see Oliver, 1994, 1996; Westbrook & Oliver, 1991).

A cognitively-laden emotion process is likely to be triggered in "eventful" conditions where for instance, inappropriate emotions are expressed by the provider or some other form of failure occurs (see Folkes, 1984, 1988; Weiner, 1985a, 1986). As argued earlier, this should lead to increased levels of cognitive activity on the part of the consumer and result in controlled information processing. The process depicted in Figure 31 generally suggests that emotion is a top-down phenomenon (Jones et al., 1991; Wilson & Klaaren, 1992; Zajonc, 1998), the primacy of cognition (Lazarus, 1981, 1984a, b), that evaluation occurs at

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Although we presented service quality as an antecedent to attribution in Chapter Eight, this was done simplistically in a linear fashion. It is quite possible that both concurrently determine emotion. In fact, for this hypothetical sequence to hold, service quality should represent the less complex form of evaluation. Furthermore, increased cognitive complexity does not forcibly involve attribution. It may be based on any set of appraisal dimensions which serve to specify the subsequent discrete emotional state (see Lazarus, 1991a; Roseman, 1984, 1991; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1991a). These dimensions are many and their number and type have tended to vary from one appraisal theory to another (see Reisenzein & Hofmann, 1990, 1993; Reisenzein & Spielhofer, 1994; Scherer, 1988b, 1993, 1997). Hence, the sequence *SQ -> Attribution* should not be taken at face value as an exact two-step cognitive evaluation process but should rather be viewed more generally as a metaphor for an increase in cognitive complexity which, in turn, implies increasing levels of controlled rather than automatic processing (see Schneider et al., 1984).

a cortical level (see Scherer, 1993), that information processing is controlled (conscious/attentive, effortful, and intentional) (see Bargh, 1994, 1996, 1997; Wegner, 1994; Wegner & Pennebaker, 1993) rather than automatic (pre-attentive, effortless, and unintentional) (see Bargh, 1994, 1996, 1997; Öhman, 1999; see also Schneider et al., 1984; Shiffrin & Schneider, 1977; Wegner & Bargh, 1998), and that emotion is an intrapersonal phenomenon (cf. Scherer, 1993; Parkinson, 1996).

9.5.3 Uneventful Encounters: A Sequence of Service Evaluation Factors Rooted in Primitive Emotional Contagion

Although cognitive theories of emotion represent the dominant framework in psychology (see Cornelius, 1996; Bagozzi et al., 1999), the relation which they propose between cognition as appraisal and emotion has not been demonstrated to be of a truly causal nature. The *cognition -> emotion* link remains in fact conceptual and correlational (see Parkinson, 1997). Hence, the contention that cognition is a *necessary* antecedent to emotion (e.g., Lazarus, 1991a) remains highly speculative and appears to lack empirical support. Moreover, it is noteworthy that causal bidirectionality often characterizes relations which involve cognition and emotion and relations among various response components of emotion (Forgas, 1999; Parkinson, 1987; Zajonc, 1998; Zillmann, 1978).

Primitive emotional contagion provides an alternate explanation to appraisal theories for the occurrence of emotion during a service encounter. A somatic perspective on emotion clearly permeates the proposed mechanism of primitive emotional contagion (Hatfield et al., 1994). In turn, this perspective involves a general downplay of the role of cognition in emotion (Ellsworth, 1991). Matched emotional states in interaction have been associated to the occurrence of synchrony, mutual entrainment, and rapport (see Andersen & Guerrero, 1998; Hatfield et al., 1992a, 1994; McIntosh et al., 1994; Parkinson, 1996; for related findings, see also Bernieri, 1988; Bernieri et al., 1988; Capella, 1981, 1993; Chapple, 1982; Davis, 1982; LaFrance 1982). Accordingly, Hatfield et al. (1992a) hold that: "[o]ne of the benefits of rudimentary emotional contagion ... is the synchronizing of social exchanges" (p. 157). Hence, the occurrence of this process seems to be most likely associated to uneventful or smooth encounters where for instance, appropriate positive emotions are displayed by the

provider after a positive outcome of service. Such an encounter should not trigger increased cognitive complexity (see Weiner, 1986) or controlled processing (Wegner, 1994).

Emotional contagion involves component processes which are pre-attentive (unconscious) and thus involve simple perceptual processes (Öhman, 1999). Hence, they are automatic (see Bargh, 1994, 1996, 1997; Schneider et al., 1984) and do not engage the type of mental calculus implied in proposed sets of appraisal dimensions by various theorists (see Scherer, 1988b, 1993). In fact, many researchers have held that much of the processing of the emotional cues emitted by others is by and large unconscious (Dimberg & Öhman, 1996; Esteves et al., 1994; Lanzetta & Orr, 1986; McHugo et al., 1985; Öhman, 1988, 1999; Posner & Snyder, 1975; Vaughan & Lanzetta, 1980, 1981). Bowers (1984) suggested a distinction between *noticing* and *perceiving*. The former refers to an introspective awareness of perceiving whereas the latter implies that stimuli may be perceived without entering into consciousness. With respect to this distinction, emotional contagion appears to involve the latter (Öhman, 1999). Zajonc (1980, 1984) has suggested that pre-attentive perception does not truly constitute *cognition* per se (cf. Arnold, 1960; Lazarus, 1984b). Accordingly, Zajonc et al. (1982) state that: "[a]ffective reactions can occur without the participation of cognitive processes ..." (p. 211). In Zajonc's (1980, 1984) perspective, *cognition* is defined rather narrowly and related to the type of information processing which underlies the functioning of a computer (Cormelius, 1996; Lazarus, 1984b; see also Way & Masters, 1996). Zajonc's (1980, 1984) perspective on what constitutes cognition is espoused here.

Various findings suggest automaticity in the component processes which underlie emotional contagion. For instance, it has been reported that the involvement of conscious cognition in attempts at mimicry of another's emotional expressions appears ineffective in smoothing out an encounter (see LaFrance & Ickes, 1982) and even seems to disrupt the mechanism of emotional contagion (Hatfield et al., 1994; see also Davis, 1985). Additional indications that complex cognitive intervention appears to modify or interfere with the process which leads to matched emotional states appears in research on counterempathic reactions (e.g., target feels joy at the misfortune of the actor). Englis et al. (1982) state that:

> in many if not most cases, an observer will respond to a model's affective display

> with a similar emotion. At the same time, however, the analysis suggests that particular conditioning experiences and/or some situations will promote counter-empathic emotional responses. (p. 378)

Englis et al. (1982) demonstrated the occurrence of counterempathic responses when expressed emotion by an actor was incongruent with an outcome for the observer. Specifically, an *asymmetry* condition consisted in first exposing subjects to a model's smiles or expressions of pain which were then followed by an incongruent outcome (e.g., model's smile was followed by an outcome consisting in "losing" and an electric shock for the observer/subject). This *asymmetry* pairing was presumed to lead to a decrease in empathic response and to acquisition of counterempathic responses. Englis et al. (1982) add that:

> [o]n the initial trials of Acquisition the Symmetry and Asymmetry groups did not differ in their reactions to the model's expressive displays; both groups responded empathetically. Over Acquisition trials, however, the Asymmetry group's responses to the model's pain and pleasure expressions became increasingly similar or, in some cases, even reversed, suggesting extinction of the initial pattern of empathetic and conditioning of particular components of a counter-empathetic response pattern. In contrast, the Symmetry group's responses to the model's pleasure and pain increasingly diverged in directions indicative of stronger empathetic reactions. (p. 389)

Elsewhere, Lanzetta and Englis (1989) found that the expectation of competition was sufficient to elicit a counterempathic response. Expectations are cognitive structures (Wilson & Klaaren, 1992). Similar results have appeared with respect to the activation of a previously established negative attitude toward an actor (see Englis et al., 1982; McHugo et al., 1985, 1991; see also James, 1890). Hence, these and other findings point to a disruption by an increase in cognitive complexity of the mechanism which presumably leads to matched emotional states in interaction.

The occurrence of emotional contagion generally suggests that emotion is a bottom-up process (Ekman, 1973; Izard, 1972, 1977; Mandler, 1975; Tomkins, 1962, 1963; Zajonc, 1998), the primacy of affect (Zajonc, 1980, 1984), that emotion resides in subcortical processes (see Scherer, 1993), and the involvement of automatic rather than controlled processing (see Bargh, 1992, 1994, 1996, 1997; Kihlstrom, 1987; Kunda, 1999; Merikle, 1992; Uleman & Bargh, 1989; see also Schneider et al., 1984; Shiffrin & Schneider, 1977;

Wegner & Bargh, 1998), and hence, the involvement of unintentional and unconscious or pre-attentive processes (Öhman, 1999). It also stresses the notion that emotions are inherently social (interpersonal) phenomena (Parkinson, 1996; see also Miller & Leary, 1992; Zajonc, 1998).

At the encounter level, an emotion process based on primitive emotional contagion evidently does not imply the sequence of evaluation factors proposed in Cronin and Taylor (1992) (*service quality -> satisfaction -> behavioral intention*). Rather, the automaticity involved in this process suggests pre-attentive perception and therefore does not entail the complex cognitive functioning (e.g., expectancy disconfirmation) typically postulated in service evaluation factors (see Oliver, 1996) and especially in assessments of service quality (see Taylor, 1995). In turn, this may suggest that complex service quality judgments are not engaged in during uneventful encounters and that a much simpler evaluation process is involved (see Figure 31). The perspective proposed herein rejoins the work of Westbrook (1987) and Westbrook and Oliver (1991) on emotion and satisfaction but also expands on it by suggesting emotional contagion as an antecedent process.

An emotion process based on emotional contagion can be generally associated to the sequence of evaluation factors suggested in Bitner (1990; see also Mohr & Bitner, 1995a, b) (*satisfaction -> service quality -> behavioral intention*). The *service quality* component of this sequence can be taken to represent a broader category which reflects cognitive evaluation. Forgas (1991b, p. 269) states that:

> [s]hort-term affective states, quite often automatically elicited by the judgmental target, may in turn influence later perceptions and interpretations. Through the automatic priming and activation of cognitive constructs and representations that were experienced in a similar affective state, the top-down interpretation of subsequent inputs is likely to be biased in an affect-consistent direction. (p. 269)

Because uneventful encounters should not involve cognitive complexity, it is argued here that judgments will not reflect the mental calculus suggested by models of service quality. Alternatively, the automaticity which is presumed to underlie uneventful encounters strongly potentiates the occurrence of spontaneous (effortless and unintentional) trait inferences (e.g., Carlston & Skowronski, 1994; Carlston et al., 1995; Gilbert, 1989; Trope & Alfieri, 1997;

Uleman et al., 1996; Winter & Uleman, 1984; Winter et al., 1985). In uneventful service encounters, trait inferences are positioned here as simple cognitive judgments which can arguably take place with respect to *emotional expressivity* (Gross & John, 1995, 1997; Kring et al., 1994).

CHAPTER 10

EMPIRICAL STUDY

One empirical study is proposed. More often than not the method of choice in the study of emotional reactions appears to be the experimental. Unlike methods based on recall of emotional experiences or naturalistic inquiries, experimental methodologies offer the advantage of studying subjects within and across comparable situational contexts (Parrott & Hertel, 1999; Scherer & Ceschi, 1997; see also Kirlinger, 1986). Accordingly, the proposed study is experimental and its purpose is to test the hypotheses discussed above. Most analyses will involve a 2 x 2 factorial (M)ANOVA design. Finally, structural equation modeling (Bagozzi, 1994b) will be used to further assess interrelations among service evaluation factors and to provide greater insights into the role of emotion in service evaluation.

10.1 Method

10.1.1 Manipulations and Use of Video Stimuli

Given the experimental nature of the proposed study, a variety of methods were considered through which an affectively-laden service encounter could be simulated. In past studies of emotion, a variety of stimuli have been used. They have included written scenarios, photographic stills, audio recordings, and videotaped (video and audio) vignettes (see Carroll & Russell, 1997; Oatley & Duncan, 1994; Pittam & Scherer, 1993; Scherer, 1982b, 1985, 1992, 1993; Smith & Lazarus, 1993; Wehrle et al., 2000). The use of photographic stills of actors and models has been the preferred method in many studies of emotion recognition. However, this approach has been criticized for its artificiality (Russell, 1994; Scherer, 1992). For instance Scherer (1992) states that:

> [i]t may well be that the focus on actor- or model-produced prototypes has led us to neglect the large variety of naturally occurring facial expressions and the multitude of underlying cognitive and emotional processes. Even a cursory investigation of snapshots from real life as can be found in newspapers and illustrated journals shows the large variety and complexity of the facial expressions regularly encountered in the field. It should also be recalled that facial expressions exhibited in the public are often highly controlled and /or manipulated to make them conform to cultural or situational expression norms .... (p. 148)

For the purposes of this study, it quickly became apparent for multiple reasons that the video vignette option was most appropriate. The main advantages of videotaped stimuli rest in their dynamic nature and in that they offer two distinct channels (audio and video) by which information can be conveyed (Scherer, 1992; Wallbott & Scherer, 1986; Wehrle et al., 2000). Moreover, videos and professional production can provide good control of displayed emotional markers and of patterns of emotion (Frank et al., 1993; Carroll & Russell, 1997). Furthermore, their use has been effective in studies of emotion elicitation (e.g., Labott et al., 1991) and emotional contagion (e.g., McHugo et al., 1985; Mullen et al., 1986; Way & Masters, 1996). Finally, video vignettes have also appeared as effective stimuli in research which has sought to simulate service encounters and maintain acceptable levels of ecological validity (Bateson & Hui, 1992; Langlois et al., 1992). For instance Bateson and Hui (1992) state that: "[o]ur findings suggested that the two environmental simulations, photographic slides and videotapes, that we used to simulate the service setting and to manipulate consumer density did evoke the same psychological and behavioral phenomena as the actual service setting did" (p.278).

The Choice of a Medical Setting

Before we could simulate a service encounter, an occupational setting needed to be chosen. We opted for a medical setting and the occupation of physician for various reasons which include the potential for high levels of emotional content and customer participation (Hardesty, 1986; Price, Arnould, & Tierney, 1995; Shostack, 1987). The choice of this occupation clearly provided a high-contact occupational setting which typically involves high levels of emotional labor (see Ashforth & Humphrey, 1993; Hochschild, 1983a). Goodwin and Radford (1993) proposed four different models of service delivery. Each involves a different combination of expectations and assumptions held by the provider and the customer in the service encounter. The *therapy model* is characterized by (a) high levels of customer participation and (b) high control over inputs to the process by the provider. *Customer participation* refers to "the varying degrees to which customer actions and choices will affect service delivery" (p. 235). *Provider control* is described as an ability to screen and select clients. It seems that this notion may be extended to accommodate a broader perspective

which includes behavioral inputs. Hence, higher control over behavioral inputs in medical occupations implies greater freedom with respect to emotional expression in comparison to for instance a bank clerk. Accordingly, Shostack (1987) identified *degree of executional latitude* or *divergence* as an important dimension of service operations. In her perspective, a medical provider, as opposed to a bank officer, exhibits much greater levels of latitude and thus can provide a highly variable or unstandardized service delivery sequence (for a similar argument, see Hardesty, 1986).

Goodwin and Radford (1993) suggest that the provider role in the therapy model is that of coach and that the dramaturgy involved requires "a highly trained, skillful improvisational actor" (p. 241). Medical professions appear to offer an ideal setting for the management of emotion (Hearn, 1987; James, 1989). Patient care typically involves caring, compassion, and concern (Peabody, 1927). Lazare (1989) suggests that the development of therapeutic relations involves skills on the part of the physician which include displaying genuine and appropriate interest, support, understanding, and empathy (see also Novack, 1987). Empathy in particular emerges as a powerful form of intervention (Rogers, 1975). Frankel (1995) states that empathy "allows the clinician to join with the patient in constructing a shared understanding of the patient's lived experience of illness" (p. 164). He adds that: "empathy and the related skills of support, legitimation, and partnership involve first the recognition of a negative feeling or concern on the part of the patient, and second a response to the feeling that acknowledges it or gives it a name" (p. 164). The provision of these qualities appears to contribute to the outcomes of care (Cohen-Cole, 1991; Squier, 1990). Underlying these aspects of good care is the ability to convey and reflect emotion. Accordingly, Hochschild (1983a) states:

> [d]octors, in treating bodies, also treat feelings about bodies, and even patients who are used to interpersonal treatment often feel disappointed if the doctor doesn't seem to care enough. It is sometimes the doctor's job to present alarming information to the patient and to help the patient manage feelings about that. In general the doctor is trained to show a kindly, trusting concern for the patient. (p. 151)

A 2 x 2 experimental design was indicated by our conceptual development in the previous chapter. Hence, four scripts were written which served as the bases for the

production of four video vignettes. Each involved the manipulation of two distinct factors with two levels. The first factor was the *valence* of the displayed emotion (positive - negative) and the second was the *context* in which the emotion was expressed. This second factor was operationalized as *health outcome* (positive - negative). With this second manipulation, two opposed diagnoses provided a frame of reference or context against which expressed emotions could be judged for their appropriateness or normativeness.

The four video vignettes which were eventually produced were based on permutations of the factor levels. In essence, two conditions involved the expression of appropriate emotion and the other two consisted in displays of inappropriate emotion. In terms of our model of the *emotion system of the service encounter*, the conditions which involved appropriate displays of emotion can be related to three of the four proposed categories of displays in Chapter Six. For the purposes of this study, we focused on appropriate or normative displays which emerge from *deep acting* (Hochschild, 1983a; Stanislavski, 1948/1965). On the other hand, the two conditions which involved inappropriate displays reflected the notion of *emotional* or *affective deviance* (Goffman, 1967, 1974; Hochschild, 1983a; Thoits, 1985, 1990). Both categories of displays involve spontaneous expressions of emotion which in turn potentiates the occurrence of emotional contagion (Hatfield et al., 1994; McHugo et al., 1985; Mullen et al., 1986). We will now review in detail each manipulation as well as the production of the four videotaped vignettes.

The Manipulation of Valence: Pleasant-Unpleasant Emotional Displays

Like Hochschild (1983a), Rafaeli and Sutton (1987, 1989, 1991; Rafaeli, 1993) have suggested that the expression of emotion is an important aspect of the work role in service occupations. One dimension of variation in expressed emotion is *valence*. Rafaeli (1993) has referred to this dimension as *content* (see also Rafaeli & Sutton, 1987, 1989, 1991). In dimensional studies of affect, valence has emerged as the main dimension of variation among felt and expressed emotions (see Bush, 1973; Davitz, 1969; Ekman, Friesen, & Ellsworth, 1972; Feldman, 1995; Izard, 1972; Mehrabian & Russell, 1974a, b; Osgood, 1969; Mayer & Gaschke, 1988; Russell, 1979, 1980; Russell & Carroll, 1999a, b Russell & Mehrabian, 1977; Russell & Pratt, 1980; Schlosberg, 1954; Solomon, 1954; Tucker, 1955; Watson &

Tellegen, 1985; Wundt, 1905). The qualifiers *positive* and *negative* when taken to refer to emotion may mean different things. Lazarus (1991a) makes an important and not so obvious distinction between positive and negative emotions:

> An emotion may be considered as either positive or negative, depending on the focus or concern, and there are three possibilities: if we focus on (1) the harmful person-environment relationship eliciting an emotion, negative emotions always point to negative causal conditions, a meaning that should be distinguished from the negative subjective quality and from the negative adaptational consequences. But we may wish instead to focus on (2) an emotion's subjective feel; or (3) its adaptational consequences. These consequences are not always simple, because there may be positive consequences of negative emotions and negative consequences of positive emotions, which makes this criterion a bit muddy. (p. 5-6)

That in the present study these qualifiers refer the valence of an emotion needs to be emphasized. Hence, they take on the second meaning discussed in Lazarus (1991a).

The type of expressions we hoped to generate in the videos were to be at least either generally pleasant or unpleasant. Knowing how others feel is an important element of everyday social interactions (Andersen & Guerrero, 1998; Buck, 1991b; Metts & Bowers, 1994). On rather rational grounds, the ability to distinguish between the two types of cues in interpersonal situations appears to be a very basic one. On more theoretical grounds, Buck (1984, 1988a, 1994) provides an explanation of emotion cues in a communication theory perspective that is based on Darwinian precepts. In the Darwinian tradition, facial expressions of emotions have been linked directly to the emotional state of the sender (e.g., Buck, 1984; Ekman, 1984; Fridja, 1986; Scherer, 1986) and have emerged as an important source of information about the emotional states (Ekman et al., 1980; Hess, Kappas, & Scherer, 1988). Similarly, Scherer (1985), Scherer and Kappas (1988), as well as Fridlund (1991b), have stressed the reflexive and communicative aspects of emotion expression or their push and pull constituents. Moreover, the pleasant-unpleasant dimension has appeared in several older and more recent investigations of nonverbal cues (especially of the facial variety) and has typically resulted in high levels of interrater reliability (e.g., Buck, Savin, Miller, & Caul, 1972; Osgood, 1966; Schlosberg, 1952, 1954).

In each vignette, we also attempted to introduce a greater level of specificity and hoped to convey the emotion category *happiness/joy* in the pleasant segments and the

category *sadness* in their unpleasant counterparts. Happiness (joy) and sadness were chosen for multiple reasons. Firstly, they tend to appear at opposite ends of the valence or hedonic tone continuum (Alvarado, 1996). One is clearly positive and the other, clearly negative (Ekman & Friesen, 1975; Izard, 1977). Secondly, they vary in terms of level of arousal. Davitz (1969) has described the differing states of arousal which underlie each basic emotion. He argued that joy and love are quite similar and that they are associated with a sense of "calm" or pleasant excitement, freely flowing energy, an "inner glow," a sense of lightness, buoyancy, and harmony. On the other hand, sadness was said to be associated with being choked up, a lump in the throat, an empty and drained feeling, and with a sinking or aching feeling in the chest. Hence, the two emotions are quite different with respect to level of arousal (see also Russell, 1979, 1980, 1997). Recently, Lang (1995) presented standardized emotion-eliciting photographic stills to subjects and mapped out their emotional responses onto a two-dimensional map based on Russell's (1979, 1980) two dimensions of *valence* and *arousal*. *Sadness* emerged in the low arousal/low pleasure quadrant whereas *joy* appeared in the high arousal/high pleasure quadrant.

Thirdly, happiness is the basic emotion which is most clearly related to good cheer which, in turn, underlies prescribed emotional expression on the job for many occupations (Parkinson, 1991; Rafaeli & Sutton, 1989). Accordingly, Hochschild (1983a) discusses at some length the power of smiles in interaction with customers. Fourthly, both happiness and sadness are realistic emotions within the medical context. Fifthly, sadness and its more extreme variants (i.e., grief, bereavement, and mourning) along with derived disorders (e.g., depression) have received considerable attention in psychology (e.g., Coyne, 1976; Power & Dagleish, 1997; Stearns, 1993). Their antecedents and consequences are well documented. Similarly, happiness/joy has also received an enormous amount of attention not only in literature related to the study of particular emotions but also in that which examines subjective well-being (e.g., Diener, 1984). Finally, both emotions are basic or fundamental, both involve particular and dissimilar configurations of facial action units, and each can be typically recognized across cultures (e.g., Ekman, 1982; Ekman et al., 1980; Izard, 1977). For instance, Ekman et al. (1980) reported that raters can reliably determine the intensity of

expressed happiness and sadness as categorical emotions. This finding appears to be quite consistent across studies (Biehl et al., 1997; Gudykunst & Ting-Toomey, 1989) regardless of whether displayed emotions were contrived (e.g., Ekman & Friesen, 1975) or spontaneous (e.g., Ekman et al., 1980). Markham and Wang (1996) state that: "[t]here is strong evidence for the universality of recognition of at least six emotions ... and for the fact that certain situations elicit the emotions of happiness, anger, fear, sadness, disgust, and surprise in adults from different cultures" (p. 616).

That dynamic displays of these emotions involve different cues was exemplified in two important studies. Wallbott and Scherer (1986) found that episodic displays of sadness were associated with "low fundamental frequency of the voice, greater head orientation down or away from the interaction partner, and relatively frequent hand movements (although hand movements in general were quite infrequent)" (p. 693). Most hand movements during sadness were identified as "shrugs (movements indicating helplessness; cf. Ekman & Friesen, 1972) or adaptors (i.e., self-manipulations)" (p. 693). They add that: "[i]n sadness, actors talked very slowly, with a voice characterized by low intensity, low pitch, and lack of melodiousness" (p. 693). In another study, Scherer and Wallbott (1994) found that:

> [j]oy is a relatively intense, long-lasting emotion that is hardly at all controlled or regulated in its expression. In consequence, it is marked by highly expressive behavior, both nonverbal and verbal, and strong approach toward other people .... Sadness is the most intense and the longest-lasting emotion. It is the only one for which there is a disjunction between vocal and nonverbal behavior. Although it is accompanied by strong nonverbal expression, there is little vocal, nonverbal, or verbal behavior. (p. 324)

The Manipulation of Health Outcome: Providing a Context for Expressed Emotion

Rafaeli (1993) suggests that after *content* (valence), the *impact of behavior* on a target person is the second main dimension which should be taken into account when considering service providers' emotional displays. *Impact* subsumes the notion of social context and is closely associated with the goals that underlie expression of emotion on the part of the employee. Hence, it suggests some form of evaluation on the part of the target of emotional displays and points to the (intended or unintended) *consequences* of expressed affect (see quotation by Lazarus, 1991a in the previous section). Accordingly, Rafaeli (1993) suggests

that an emotion that is pleasant or unpleasant for the service provider may not be classified necessarily as positive or negative by the consumer. An example which reveals the importance of this dimension is the expression of a negative emotion such as sadness which provides support to the client/patient when conveyed or reflected empathetically by a therapist or doctor after an experienced trauma. The emotion is negative but in all likelihood carries a positive impact (Rafaeli, 1993). Although it is a negatively valenced emotion, the expression of sadness is nevertheless appropriate in certain circumstances. Rafaeli (1993) states that:

> [e]ngaging only the positive-negative dimension in assessing employee behavior is limited, however, because it ignores the fact that two people participate in the service encounter. For a target person (a client), the same behavior may be positive or negative, depending on the context. The smile of a waitperson, for example, may be classified as positive if it is perceived as genuine and welcomed by the clients. But the same smile may be construed as artificial and hamper the service experience of particular customers. Similarly, the sad and somber behavior of a funeral director and the aggressiveness of a bill collector are classified as negative, yet both accomplish the goals of the organization and the employee. It is, therefore, essential to consider the second dimension, which is the desired impact of an employee's behavior on the target person. (p. 196)

The importance of context in communication is paramount (Cicourel, 1987; Goffman, 1959, 1971; Sacks, Schlegoff, & Jefferson, 1974). Goffman (1959, 1971) suggested that brief encounters in organizational and public settings are shaped by interpersonal and cultural "baggage" among participants. More generally, Cicourel (1987) argued that communication and interactional context shape each other. He holds that:

> [v]erbal interaction is related to the task at hand. Language and other social practices are interdependent. Knowing something about the ethnographic setting, the perception of and characteristics of others, and broader and local social organizational conditions becomes imperative for an understanding of linguistic and nonlinguistic aspects of communicative events (p. 218).

The patient health outcome manipulation was isolated in the verbal content of the audio channel of each vignette. This left open the video channel for the portrayal of facial, postural, and gestural nonverbal displays of emotion. Moreover, the delivery of the health outcome treatment via the verbal component of the audio channel did not appear to interfere with the delivery of prosodic (non-verbal) indicators of emotion such as tone of voice via the

same channel. This differential use of video and audio channels is generally consistent with much literature that suggests that the conveyance of emotion is typically better achieved via nonverbal cues (for a review, see DePaulo & Friedman, 1998). For instance, the relative importance of verbal and nonverbal components of emotional expression was investigated in Mehrabian and Weiner (1967). Actors said certain things about a hypothetical third person (verbal component) and simultaneously expressed a positive or negative attitude by tone of voice or by facial expression (nonverbal component). Judges were then asked to assess each actor's attitude. It was found that judges tended to base their ratings on an actor's tone of voice rather than on the meaning of his/her spoken words. Findings which point to the greater importance of nonverbal cues in conveying emotion are also reported in Mehrabian (1972). More recent investigations have confirmed the importance of tone of voice as a nonverbal cue in accurately conveying how one feels (see DePaulo, Lassiter, & Stone, 1982; Ekman & Friesen, 1969a; Zuckerman, DePaulo, & Rosenthal, 1981). Additionally, Wallbott and Scherer (1986) reported that video channels were more effective in terms of decoding accuracy than audio channels in presenting emotion stimuli. These findings reassured us that the health outcome manipulation (verbal/word content) would be rather independent of the valence manipulation based on nonverbal expressions of emotion.

Rafaeli's (1993) dimension of *impact* via its consideration of social context clearly reflects a sociological perspective on emotion. The appropriateness of feelings is partly established by one's social role (e.g., wife, mother, doctor, funeral director, etc.) (Hochschild, 1983a) and the rules and normative characteristics of a situation (see Kemper, 1991, 1993) or a frame in Goffman's (1974) perspective. In general, social roles clearly create expectations during interaction with others (see Averill, 1980a, b, c, 1982). Hochschild (1983a) states that:

> "[a] social role ... is partly a way of describing what feelings people think are owed and owing. A role establishes a baseline for what feelings seem appropriate to a certain series of events. When roles change, so do rules for how to feel and interpret events (p. 74).

At some length, Hochschild (1983a) discusses "misfitting feelings" (p. 63). She holds that:

> [a] feeling itself, and not simply the way it is displayed on the face and body, can be

> experienced as misfitting a situation in a surprising number of ways. We can suggest a few of them by considering how one might feel at a funeral .... A funeral is ideally suited to inducing spontaneous sadness and grief .... Yet in a wondrous variety of ways it is possible for a griever to misgrieve. One way is not to feel sad .... We can offend against a feeling rule when we grieve *too much* or *too little*, when we overmanage or undermanage grief. (pp. 63-64)

Service providers cannot be expected to engage in and perform emotional labor properly at all times. The observations and reasoning above can clearly be extended to a medical encounter where misfitted or inappropriate feelings can be expressed via an inability to manage emotion because of inadvertence, fatigue, or for a variety of other reasons which can include a battery of affective disorders (for a review of conditions and symptoms, see Dunner, 1990).

Two of the four video vignettes were designed to convey emotions which were normative. Specifically, in one vignette happiness was expressed while telling the patient (observer/subject) that s/he had no diabetes and was in good health whereas in the other sadness was conveyed while relating to the patient that s/he did in fact have diabetes. The other two video vignettes involved displays of feelings which were non-normative and thus incongruent with the verbally-delivered health outcome. In one condition, the patient was told that s/he had diabetes while the positive emotion happiness was being displayed. In another, the patient was told that all is fine (no diabetes) but the negative emotion sadness was expressed. These experimental conditions were thus created to represent deviant or inappropriate displays of emotion and hence, to symbolize detachment from social context and disengagement from emotional labor on the part of the provider. From the patient's perspective, this sort of incongruity would, in all likelihood, be perceived as not living up to the *implicit service contract* (Rafaeli, 1993) between physician and patient.

A variety of other interpretations can be made with respect to this category of displays. In Figure 9, it was positioned as a deviant category of displays. The notion of *affective deviance* is attributed to Goffman (1967, 1974). The affective deviant represents the nonconforming individual with the wrong feeling for the time or situation and for whom the right feeling appears to be a burden. The notion of burden then clearly implies that work or effort rather than passivity is needed to feel and display proper emotions and the

appropriateness of the emotion is guided by the characteristic nature of the situation (Hochschild, 1983a). In other words, that the social logic of the situation typically guides emotion (Kemper, 1991, 1993) becomes evident in the case of deviance where the rules dictated by the situation are broken. A similar perspective on deviance appears in Thoits (1985, 1990) who views *emotional deviance* as the experience of an emotion that is contrary to that which is prescribed (e.g., a cheerful mourning) and which requires rectification to make it congruent with normative expectations. For Thoits (1985, 1990), deviance does not only include emotions which are contrary to normative expectations but also emotions that are too intense, too prolonged, or directed at a wrong target.

Deviance may point to differences in focus in self-regulation. Deci and Ryan (1985a, b) suggested that individuals with an autonomous regulatory style will show greater reliance on their needs and feelings rather than on controlling contingencies whereas those with a control-determined style will be impelled to behave in a fashion that is congruent with external controls or internal imperatives. In this perspective, the deviant may be predisposed to rely on internal regulatory cues rather than on contextual cues. Another explanation that may provided for inappropriate displays or disengaging from one's prescribed role behavior is the potential for estrangement from feeling (see Hochschild, 1983a, pp. 185-194). In this situation, one is no longer able to feel or no longer wants to feel. One is in burnout and/or emotionally numb. A third but yet conceptually related interpretation of the conveyance of inappropriate displays involves Buck's (1991b) notions of *social* and *emotional competence*. Emotional competence is "the ability to deal with the internal environment of one's feelings and desires" whereas social competence is "the ability to deal effectively with other persons" (p. 131). It is added that: "[g]enerally, social and emotional competence are mutually supportive: accurate emotional communication would tend to foster the ability to deal both with other persons and with one's own feelings and desires ...." (p. 131). Accordingly, the deviant emerges here as socially and emotionally incompetent. In a like vein, deviance is also related to the notions of *emotional intelligence* and *social intelligence* in the context of emotion regulation (Goleman, 1995; Salovey & Mayer, 1989-1990). A final interpretation of this situation may simply be one that is based on sincerity or authenticity: one is happy or

sad because of something unrelated to work and one thus chooses to express those feelings rather than what is normatively dictated by a situation. This perspective seems akin to Rousseau's Noble savage who simply feels what he feels and who is thus authentic and in touch with his feelings (see Hochschild, 1983a, p. 193).

The Production of Four Written Scripts

Four scripts were initially prepared on paper. They portrayed a medical doctor addressing a patient. Each involved permutations of the two factor levels of each manipulation (valence and health outcome). The communicative behaviors of the actor were clearly delineated into verbal and nonverbal categories. Nonverbal behaviors (facial, postural, gestural, and prosodic cues) were singled out for the conveyance of emotion. On the other hand, verbal (word) content was used for the health outcome (diabetes diagnosis) treatment.

A physician was asked to scan over the scripts and identify anything she found to be remotely bizarre, completely unrealistic, and which had "no place in a medical encounter." The practitioner was also told the general purpose of the study and asked to determine any scripted emotional behaviors which were out of character for a medical doctor. Many specifications were offered with regard to the diagnosis of diabetes. These changes were subsequently incorporated into the scripts. The medical practitioner confirmed that although there are prescribed emotional reactions for members of medical occupations, she had often witnessed deviations from normative behaviors and had herself engaged in such behaviors. She agreed with Shostack (1987) that medical practitioners often feel that they have much latitude in their behaviors during interaction with a patient. Nevertheless, with respect to the scripts, she suggested that some of the depicted emotional behaviors be toned down and others amplified. We abided by these suggestions to the extent that they did not adversely affect the purpose of the proposed manipulations.

The Use of a Method Actor and the Production of the Video Vignettes

The next task consisted in hiring an actor for the project. The main criteria for hiring were whether or not the person was capable of generating an emotion in him/herself prior to filming each vignette and of genuinely and spontaneously conveying that emotion on film. These abilities would then partly ensure that the cues which were projected were coherent

with the emotion the actor was asked to portray and would minimize the appearance of double-edged messages (i.e., contradictory cues) (see Ekman, 1985). These criteria were primarily motivated by an intention to reflect the literature on emotional labor and especially Hochschild's (1983a) notion of *deep acting*. Moreover, they concurred with Goodwin and Radford (1993) who argued that the proper delivery of therapy-based types of services involves high levels of dramaturgy on the part of the provider. They metaphorically state that: "the therapy model requires a highly trained, skillful improvisational actor; examples from theatre include ... the actor who reaches into him/herself to interpret a role" (p. 241). This statement clearly refers to Stanislavski's (1948/1965) Method where qualities such as spontaneity in emotional expression and the ability to generate an emotion in oneself prior to delivering a performance are stressed in an argument designed to demonstrate the superiority of Method acting vis-à-vis another form akin to Hochschild's (1983a) notion of *surface acting*. According to Stanislavski, Method acting offers the greater potential of moving an audience in comparison to a form of acting that is based on unfelt and contrived displays (i.e., that of the Coquelin school). Hochschild (1983a) associates the former category of acting to *deep acting* and the latter to *surface acting*.

The need for an experienced Method actor was further emphasized by a variety of findings in psychology and communication research which have indicated the primacy of nonverbal factors in the recognition of felt rather than simply displayed (or potentially feigned) emotion (e.g., Andersen & Guerrero, 1998; DePaulo, 1992; DePaulo & Friedman, 1998; Ekman, 1990; Ekman & Friesen, 1982; Ekman, Friesen, & O'Sullivan, 1988; Frank, Ekman, & Friesen, 1993; Gosselin, Kirouac, & Doré, 1995). Numerous studies have provided strong evidence that people can recognize the emotional states of others via facial markers above chance rates and that they are able to discern when emotions are truly felt and when they are being feigned. Ekman (1997) suggested that spontaneous facial expressions of emotion (Ekman's category 1) can be differentiated from the contrived variety (Ekman's category 2) based on the following six criteria: (a) morphology, (b) symmetry, (c) total duration, (d) speed of onset, (e) coordination in apexes, and (f) ballistic trajectory. In the case of spontaneous expressions of emotion, the coordination of apexes for individual facial

action units should involve greater overlap whereas the ballistic trajectory criterion suggests that the "expression will appear smooth over its course in category 1, rather than jagged or stepped in category 2" (p. 474). Merten (1997) proposed that in interaction "[t]he probability for a relation between facial displays and subjective experience is high (a) if we deal with spontaneous interactions between people, (b) if the people are prone to be emotionally aroused by social interactions, and (c) if the arousal is so high that it cannot or is not coped with by facial display rules" (p. 181). Buck (1991b) argued that spontaneous emotional expressions were more likely to engage observers and result in matched emotional states. These and many other findings reviewed in previous chapters clearly pointed to the benefits of spontaneous emotional displays and to the need for a Method actor to generate an emotion in him/herself and to subsequently convey that emotion in a non-contrived manner. At the least, the choice of a Method actor increased the likelihood that the finished product would reflect these factors in displayed emotional expressions.

Mr. Dino Tosquez, a professional and well-seasoned actor of Italian origin in his forties, was approached and interviewed for the role. The actor was made aware of our needs, concerns, and the general purpose of the study along with the necessity to comply with the criteria stated above. He repeatedly stressed that he could comply and that he was trained in Stanislavki's Method for actors. His curriculum vitae indicated that he was a member of the Canadian Actors' Guild and that he had appeared in a variety of Canadian television series. Recent appearances included a role in the acclaimed series *Omerta* which was aired on CBC. He had also earned credits in the U. S. and in Canada for various theater and film productions. Recent work included an appearance in the movie *No Alibi*. His work also included appearances in many television commercials which were aired in the U. S. and in Canada. Initially, the gender of the actor was a concern especially with respect to inducing an emotional reaction based on contagion. However, this concern was quickly put to rest. Dimberg and Lundquist (1990) investigated whether the gender of the person expressing facial emotion would influence the expressive reactions of subjects. It was found that the facial expressions of females were not more effective than those of males in evoking distinct EMG activity in subjects. Hence, the gender of the actor appeared irrelevant in inducing an

emotional reaction via emotional contagion (see also Dimberg, 1990a).

Mr. Tosquez was subsequently hired to portray the medical doctor in the four proposed video vignettes. Miss Jennifer Roche, a Concordia University film student, was hired mainly to film the vignettes and to edit the material into its final form. The scripts for each vignette were delivered to Mr. Tosquez and Miss Jennifer Roche three weeks prior to filming. The purpose of the study was made clear to both participants. It was decided that given the general objectives of the study and the experimental purpose of the videos, improvisation would be kept to a minimum. Mr. Tosquez was told that he could convey the intended emotion with a combination of cues which included facial behaviors, posture/ postural shifts, hand gestures, forms of prosody, etc. A list of nonverbal emotional displays was provided to the actor. This list was based on the relevant literature (e.g., Andersen & Guerrero, 1998; DePaulo, 1992; DePaulo & Friedman, 1998; Mehrabian, 1971, 1972; Scherer, 1982a; Scherer & Wallbott, 1994; Wallbott & Scherer; 1986; Zajonc, 1998). Because of the dynamic nature of the medium that was chosen, specified nonverbal behavior also included movement behaviors (i.e., rapidity, expansiveness, energy, activity, and pleasantness) and dynamic voice behaviors (rapidity, intensity, pitch/frequency, melodiousness, and pleasantness) (see Ekman, 1997; Scherer, 1982b; Scherer & Wallbott, 1994; Wallbott & Scherer, 1986). The importance of facial displays and various forms of prosody was repeatedly emphasized to the actor. Mr. Tosquez was many times asked to ensure that the delivery of these markers be coherent and sequenced in a natural manner with respect to each particular emotion that was to be conveyed. The actor reassured the principal researcher that he was familiar with and extensively trained and experienced in how to genuinely convey emotion on film. He added that the use of these cues was part of his formal training as an actor. In addition, the actor was asked to sometimes slightly overdo facial displays in terms of intensity because the more successful studies of recognition of facial displays have relied on rather intense displays (e.g., Buck, 1994; Ekman, 1984, 1993, 1994; Izard, 1980, 1994). Accordingly, Wehrle et al. (2000) recently used video stimuli of facial expressions and found that: "high intensity stimuli were slightly better recognized [i.e., less confusion] than low intensity stimuli" (p. 112).

Two rehearsal sessions were scheduled. On the first session, the actor asked many questions and made many suggestions. He was permitted to make adjustments to the scripts which would augment the realism of the finished product and facilitate filming through blocking of the sequence of takes in each script. Many suggestions were also made by Jennifer who was creating a sequenced story board for each vignette. Concerns during this session revolved around particular configurations of emotion cues so that delivery would not appear too overdone and yet would reliably, genuinely, and consistently convey a single emotion throughout each vignette. This was a difficult balance to achieve. The actor took extensive notes on each script and provided many samples of emotional expression based on variations of multiple emotion cues. He appeared quite versatile in his ability to convey emotion via the cues he was asked to use. Each scene was carefully decomposed in terms of how a battery of emotional displays would be delivered sequentially. During the rehearsal sessions, Mr. Tosquez also took a few minutes prior to final delivery to generate the emotion in himself that he was going to portray (happiness or sadness). In one instance, the actor was clearly and highly involved in generating in himself the emotion *sadness*. Tears came to his eyes and he quite genuinely appeared sad. When asked how he had achieved this, he said that he had worked the feeling by focusing on an unpleasant event in his life. This approach was consistent with Stanislavski's (1948/1965) Method for actors which is based on retrieving relevant *emotion memories*. At the end of the second rehearsal, the actor delivered the finished product almost impeccably. Nevertheless, there were some problems in coordinating emotional displays in the conditions which involved incongruity between displays and patient outcome (e.g., positive displays while telling patient s/he had diabetes). The actor said he would work out the glitches with suggestions from another actor he knew before filming. We decided to schedule filming on the following weekend.

Access to a medical clinic was secured for the following Saturday and Sunday. The clinic was rather typical in design. It had a waiting area in the front, a receptionist's cubicle, and a corridor with office doors located on each side. One of four offices was chosen by Jennifer because of its superior lighting conditions. The dimensions of this office space were approximately 11 feet by 11 feet (approx. 3.5 square meters). The office included a desk and

an office chair, an examination table, an instrumentation cabinet, a bookcase, a sink, two chairs for patients facing the side of the desk opposite to the physician, and various other features which are common to medical offices (i.e., phone, clock, medical instruments, patient files/charts, wall charts, drug samples, etc.).

On Saturday morning, Mr. Tosquez arrived finely groomed and quite enthusiastic. He wore dress pants, a white shirt, and a tie. He was supplied with a white lab coat purchased at the McGill University bookstore and a stethoscope which was found in the office. He also applied a minimal amount of facial make-up. This apparently eliminates a greenish facial tint in some lighting conditions. Miss Jennifer Roche arrived with an 8 mm Sony Super VHS video camera, a white board, felt pens of various colors, and other pieces of equipment she needed for filming (extension cords, VHS tapes, etc.). A television set was supplied by the principal researcher and was set up in an adjacent office. Next, Mr. Tosquez sat at the desk while Jennifer made adjustments to the camera (picture and sound). One of the two chairs reserved for patients which rested between the door of the office and the doctor's desk was removed from the decor so as to facilitate filming for Jennifer. This chair was found to impede her movements in initial trial runs with the camera.

In general, the vignettes were designed to ensure that an observer would get the impression that s/he was being addressed personally by the physician. Thus, Jennifer would attempt to capture on camera the perspective of the patient. The camera represented the patient's eyes and ears. Each vignette was to last approximately three to four minutes. This is more than ample time for an actor to effectively convey particular emotions in video segments and for these emotions to be recognized by an audience (see Carroll & Russell, 1997). This is also more than sufficient in terms of presentation time to elicit pre-attentive reactions to emotional stimuli (see Öhman, 1999). The production of each vignette was subdivided into three to five different scenes. This facilitated the task for the actor in terms of monologue and allowed him to review his lines and verify/confirm the general sequence of cues that was to be delivered in each scene/block prior to filming. Each blocking sequence was designed a priori by Mr. Tosquez and written down on the white board brought by Jennifer. A story-board approach was thus used throughout the filming of each vignette. The

blocking sequence that was established by Mr. Tosquez and Jennifer also assured high levels of continuity between the scenes.

Before the shooting of a scene, the actor rehearsed his monologue and demonstrated what he was going to do in terms of nonverbal displays of emotion. Right afterwards, the actor usually asked for some privacy to generate the intended emotion in himself. In some instances, he would leave the filming locale and go to another office and would reappear in a few minutes. One thing which struck the principal researcher was the change in attitude in the actor just prior to filming. Pleasantries ceased and he appeared completely engulfed in his craft as well as oblivious to what was going on around him. He seemed to focus entirely on himself. When ready, he indicated that we could proceed with the filming of a scene. One indication that he had actually generated the intended emotion within himself was that between the scenes of a particular vignette (i.e., when filming was interrupted), the actor would address Jennifer and/or the principal researcher in a tone of voice and with a facial configuration which reflected the emotion which was intended to be portrayed in that particular vignette.

Each vignette began with a shot of the facade of the clinic clearly identifying it as a medical clinic. Next the waiting area, the reception cubicle, and the corridor with the offices were shown. This scene was filmed only once and was integrated into the final version of each vignette. No variation therefore appeared among the four vignettes with respect to this initial scene. However, it provided information on which subjects could base their responses to some items designed to measure service quality (see Parasuranam et al., 1988, 1991). The next scene began with a closed office door which was opened by the physician to reveal the office. The physician then proceeded to welcome the patient, ushered him/her in, and asked the patient to have a seat. Variations in emotional expression among the four vignettes began almost immediately after the physician opened the door. As the patient entered the office, the emotional tone of the encounter was set almost immediately with the displayed facial expressions of the physician. Every attempt was made to ensure that the prescribed emotional tone was constantly maintained throughout the vignette. While filming, Jennifer walked into the office and took a seat in front of the physician who also proceeded to sit down. To

capture each scene from the patient's perspective, the camera was fixed on the physician's upper body and face throughout filming. His hands were also always visible so as to capture any expressive hand movements. The physician scanned over the patient's file and proceeded to deliver the monologue along with the sequence of nonverbal emotional displays designed to continually convey either happiness or sadness throughout the encounter. The final scene consisted in the physician ushering the patient towards the door, opening the door, saying goodbye, and finally closing the door. The conveyance of emotion took place until the door was closed.

The actor performed uninterrupted on camera for no more than a minute or so for each scene. When he appeared tired, confused, or was interrupted during filming because of a mistake (i.e., grossly overdoing a display, wide divergence from the script, and/or poor timing (or incongruity) of a particular display such as a hand gesture with respect to another indicator of emotion or line in the script, filming was immediately interrupted. The mistake or incongruity was pointed out to by the principal researcher and only observer or by Jennifer who was filming. When the actor felt ready to do it over again, filming was resumed. Multiple takes of each scene were done over the two day filming session. Jennifer marked the take which seemed best for a particular scene on the story board. This would later facilitate her job in editing and in splicing together the better take of each scene to create a final version of each vignette. Once the entire sequence of scenes for a vignette was deemed completed, the camera was hooked up to the television in the adjacent office and the tape was run. Each take of each scene was examined carefully. Many were quickly discarded and tagged as unusable. Certain inadequacies/inconsistencies in emotional expression or hesitations on the part of the actor were observed while watching the tape that escaped our attention during shooting. When this occurred and no take was deemed appropriate for a particular scene, that scene was marked for a reshoot. Reshooting of particular scenes continued until everyone involved arrived at the consensus that a vignette could be produced with a series of selected takes from the pool of takes that had been accumulated. This process continued for over twenty hours. Filming was aborted once we were sure that enough takes of each scene were filmed to complete each of the four vignettes.

The next step consisted in editing and splicing together a series of takes to generate each of the four finished vignettes. This was done by Jennifer with the aid of fairly advanced methods based on screening and editing the takes with a computer program at Concordia University's film lab. This advanced form of splicing ensured continuity. Each finished vignette lasted from three to four minutes. This time span is clearly sufficient to generate an emotional reaction in subjects via cognitive appraisal or primitive emotional contagion. In fact, it typically takes milliseconds to generate an emotional reaction in paradigms which seek to avoid conscious processing (see Dimberg, 1991, 1994, 1995; Öhman, 1999; Zajonc, 1980). In other studies, video stimuli have lasted a few seconds (e.g., Uchino et al., 1991) to a few minutes (e.g., Kappas, McHugo, & Lanzetta, 1989; Mullen et al., 1991; McHugo et al., 1985) as did the ones used for the present study. Because, we sought to simulate a service encounter from beginning to end within a realistic time span, we were worried that if contagion effects did appear, they may not last long and dissipate before the end of the video. Thus, the script of each vignette was geared for a more or less continual flow of a single emotion (sadness or happiness) expressed consistently via a battery of indicators throughout each vignette.

One difficulty which emerged during production concerned the two vignettes in which nonverbal displays were incongruent with the outcome for the patient (display of joy during the delivery of a negative diagnosis to the patient/ display of sadness during the delivery of a positive diagnosis to the patient). In other words, this combination of factors rendered the positive or negative display of emotion inappropriate or non-normative. In some instances, the actor appeared to experience difficulties in properly conveying emotions nonverbally which were clearly incongruent with the situation. Specifically, it seemed difficult for him to compartmentalize and integrate the verbal monologue and the nonverbal displays of emotion because they were incoherent. In some instances, this appeared due to fatigue. To facilitate the task, the principal researcher provided a reason to the actor which may explain such behavior in real life. The actor was told that as a physician his affective state may independently be affected by a forthcoming golf game which makes him happy despite the bad news he must deliver; and conversely, he may be feeling sad because of a

family situation despite the good news he was to deliver. This implied a detachment from the immediate social situation (Hochschild, 1983a), a focus on the self rather than the social context, and the use of a form of regulation that was based on personal needs and goals rather than on situational constraints (Deci & Ryan, 1985a, b). From thereon, it took a little more rehearsal and the actor finally appeared more comfortable and capable in his delivery. However, he did later convey that it was not an easy performance and that the incongruence was difficult to reconcile. At one point, he said with respect to what was asked of him that: "This is crazy!" The principal researcher reminded the actor that these experimental conditions reflected deviance and that they were intended to be construed as "crazy" because of their inappropriateness.

Another difficulty involved the generation of the required emotional state by the actor which initially appeared sustained but with the many interruptions during filming, we wondered whether the actor remained in this state throughout filming as additional takes were undertaken and the actor was confronted with a variety of criticisms and suggestions. In some instances, as takes were being redone over and over, the intensity of the feelings displayed by the actor and his enthusiasm sometimes seemed reduced. As the filming progressed many breaks were taken especially towards the end of the day. In some instances, the actor was asked to double his efforts which he usually did. Ultimately, when filming was aborted, the number of completed takes of each scene secured the team in that we were fairly certain that we had accumulated more than enough takes to effectively complete each video vignette within specified parameters.

10.1.2 Judge's Ratings of the Four Video Vignettes

To assess each video vignette, one expert judge was recruited at Concordia University and two other academics from UQAM accepted to participate. The three judges were not involved in the project and were kept blind as to its ultimate purpose. The judge from Concordia University and one judge from UQAM were professors of Marketing. The third rater was a doctoral student in Management in the final stages of her dissertation who also held a graduate degree in clinical psychology and had practiced as a therapist.

A videocassette and a questionnaire were provided to each judge. They were asked

to watch each vignette, to immediately rate it on a variety of scales, and to sequentially go on to the next condition on the videotape, and so on (see Hansen & Shantz, 1995). In some instances, much more elaborate rating procedures have been used to generate expert ratings of emotions expressed in films. For instance, some have involved decomposing a vignette into short segments of 15 seconds (e.g., Houle & Feldman, 1991). These short segments were then rated consecutively one at a time. However, such vignettes have often involved taped extracts from television shows and thus the increased potential of variation in expressed emotions. In our case, the expressed emotion in each vignette was purposely designed to be consistent throughout. It was therefore deemed sufficient to have the judges first watch the entire vignette and then provide global ratings of the episode they witnessed on video. The emotion portrayed in each vignette (happiness or sadness) was most basic or fundamental (see Ekman, 1982, 1992b, c; Izard, 1977). Because of the reported levels of agreement within and across cultures on the differentiation of these emotions (Ekman, 1994; Izard, 1994), operational definitions were deemed unnecessary and not provided to the judges.

The rater form contained two items which were designed to assess the valence and level of arousal conveyed in the displays. The two single-item measures were based on the Affect Grid (see Russell et al., 1989). This simple measure was designed to reflect the two-dimensional space of the affective circumplex (see Russell, 1979, 1980, 1997). Use of the Affect Grid requires subjects to place a mark on a two-dimensional 9 x 9 grid which simultaneously indicates the valence and level of arousal underlying a feeling. The two derived measures used here simply assessed each dimension independently on nine-point scales which ranged from *Extremely Unpleasant* (1) to *Extremely Pleasant* (9) and from *Extreme Sleepiness* (1) to *Extreme High Arousal* (9). Categorical measures which typically associate an emotion label to a level of intensity (see Alvarado, 1997) were also used. The particular form of these scales was that which appears regularly in the work of Hatfield and her associates (e.g., Hsee et al., 1990; 1992; 1993). The intensity scales ranged from *Nothing at All* (0) to *Maximal* (10). Four emotion labels and associated intensity scales were provided to raters. The emotion categories were: *happiness*, *sadness*, *surprise*, and *anger*. The latter two were essentially distracters. These scales were used to assess the intensity of the emotion

displayed by the actor. The same scales were used to assess the emotion the rater thought the actor truly felt. Another item more directly measured the level of authenticity underlying the displays. Its anchor points were *Not Truly Felt* (1) and *Truly Felt* (9). Two additional items assessed the appropriateness of the displayed emotion in each vignette given the outcome to the patient. One nine-point scale had anchors *Extremely Inappropriate* (1) and *Extremely Appropriate* (9). The other ranged from *Completely Inconsistent with what is Expected of a Physician* (1) to *Completely Consistent with what is Expected of a Physician* (9).

The emotional displays in the vignette labeled Condition 1 (positive displays/positive outcome) were on average rated as very pleasant ($\bar{x} = 8$) and of high levels of arousal ($\bar{x} = 7$). The four categorical measures clearly suggested that displayed happiness was recognized (happiness: $\bar{x} = 9$, sadness: $\bar{x} = 0.33$, surprise: $\bar{x} = 1$, anger: $\bar{x} = 0$). On the same scales the raters were asked to assess the extent to which the actor truly felt the four emotions. The scores indicated that authentic happiness was delivered (happiness: $\bar{x} = 8$, sadness: $\bar{x} = 1$, surprise: $\bar{x} = 1$, anger: $\bar{x} = 1$). The score on the item specifically designed to assess the authenticity of the displays also indicated that the displayed emotion (happiness) was perceived as rather authentic ($\bar{x} = 7$). The displays also emerged as highly appropriate ($\bar{x} = 8$) and quite consistent with what is expected of a physician given the health outcome of the patient ($\bar{x} = 8$).

The emotional displays of Condition 2 (negative displays/negative outcome) were judged as highly unpleasant ($\bar{x} = 1.33$) and to involve moderate levels of arousal ($\bar{x} = 6$). The four categorical scales designed to assess the intensity of displayed emotion clearly suggested that sadness was overwhelmingly displayed (happiness: $\bar{x} = 1.33$, sadness: $\bar{x} = 8$, surprise: $\bar{x} = 3$, anger: $\bar{x} = 2$). Similar scores emerged on these scales with respect to whether these emotions were truly felt (happiness: $\bar{x} = 1$; sadness: $\bar{x} = 9$; surprise: $\bar{x} = 1.33$; anger: $\bar{x} = 1$). The single item designed to assess authenticity indicated that the displayed emotion (sadness) was perceived as highly genuine ($\bar{x} = 8.33$). The items which assessed the appropriateness of the displays indicated that they were highly appropriate ($\bar{x} = 8$) and consistent with what is expected of a physician given the outcome of the patient ($\bar{x} = 7.66$).

The next two conditions were designed to convey emotional deviance. The displays

of Condition 3 (negative displays/positive outcome) emerged as moderately unpleasant ($\bar{x}$ = 4) and were judged to be of moderate levels of arousal ($\bar{x}$ = 4). The four intensity scales pointed to sadness as the predominantly displayed emotion (happiness: $\bar{x}$ = 2, sadness: $\bar{x}$ = 7.33, surprise: $\bar{x}$ = 0.33, anger: $\bar{x}$ = 0.33). The same scales when used to assess whether the emotions were truly felt also suggested the predominance of sadness (happiness: $\bar{x}$ = 1.33, sadness: $\bar{x}$ = 4, surprise: $\bar{x}$ = 0.33, anger: $\bar{x}$ = 0.33). The displays were rated as fairly authentic ($\bar{x}$ = 7). Scores on the two items which assessed appropriateness indicated that the displays were inappropriate ($\bar{x}$ = 3.33) and rather inconsistent with what is expected of a physician given the outcome to the client ($\bar{x}$ = 3).

The displays of condition 4 (positive displays/negative outcome) were judged as pleasant ($\bar{x}$ = 7) and of fairly high levels of arousal ($\bar{x}$ = 7). The intensity scales pointed to happiness as the displayed emotion (happiness: $\bar{x}$ = 7, sadness: $\bar{x}$ = 3, surprise: $\bar{x}$ = 1, anger: $\bar{x}$ = 0). The same scales when used to assess the emotions truly felt by the physician also singled out happiness (happiness: $\bar{x}$ = 7.66, sadness: $\bar{x}$ = 2.33, surprise: $\bar{x}$ = 1, anger: $\bar{x}$ = 0). The authenticity item pointed to a display of happiness that was fairly genuine ($\bar{x}$ = 6.33). The displays emerged as inappropriate ($\bar{x}$ = 2.33) and inconsistent with what is expected of a physician given the health outcome of the patient ($\bar{x}$ = 3).

Overall, the judges' ratings appeared to confirm that the manipulations were successfully executed. Conditions 1 and 2 emerged as the most polarized in terms of the valence of the displayed emotion. Slight confusion seemed to appear in the latter two conditions especially with respect to the categorical intensity ratings. Nevertheless, the emotion which was supposed to be portrayed non-verbally emerged as that judged to predominate in Conditions 3 and 4, respectively.

10.1.3 Subjects

Subjects were recruited at l'École des HEC to participate in an experiment which required them to "provide an opinion on a video." Although most of the school's programmes are offered in French, many courses are increasingly being offered in English and Spanish. A substantial percentage of the student body is bilingual if not trilingual. A little more than half of the participants were female (52.2%). Most participants reported being in

the 18 to 24 years of age category (78.3%), single (86.8%), and having a personal income of under $20,000 in Canadian currency (82.5%). Most indicated that they lived at home with their parents (39.1%). However, many reported that they permanently lived in their own home or apartment (36.5%) and a substantial number stated that they lived away from home temporarily (24.3%). The majority of participants reported having Canadian citizenship (73.9%). Most reported French as their first language (83.5%) and English as their second language (68.7%). A much fewer number reported English as a third language (21.8%).

10.1.4 Procedure

Convenience sampling was used. Active recruitment mostly took place in the hallways of École des HEC. The study was also announced throughout the school with posted signs. Each participant was offered five dollars in Canadian currency for participation. Each willing participant was screened on his/her ability to comprehend the English language. When they indicated that it was inadequate, they were excused and told they could not participate.

Over the period of a week that was budgeted for gathering data, a variety of rooms within the school were used. Participants were typically ushered into a fairly large conference room or classroom that had been set up for video viewing in the morning. A television set and videotape player were placed in one corner of the room. The equipment was positioned at an angle and away from the entrance to the room so that if one wanted to see what appeared on the television one had to stand directly in front of it. A chair was placed in front of the television for the subjects. Tables and chairs were positioned on the side of the room near the entrance where subjects could complete the questionnaire.

Typically, subjects were randomly assigned to one of the four video conditions. In most cases, a subject was alone when viewing the video vignette. In only a very few cases, no more than two or three subjects saw the same vignette together. These subjects refused to wait or were simply pressed for time and could not return prior to the scheduled completion date of the data gathering phase of the study. Once a subject had finished watching the video, s/he was asked to fill out the questionnaire away from the viewing area where another subject may have been brought in at any time. Each subject was clearly

instructed to identify with the camera (Chebat, Filiatrault, & Gélinas-Chebat, & Vaninsky, 1995). Once the questionnaire was completed, the subject was fully debriefed, paid, and asked not to discuss the purpose of the study with classmates. This process took on average about thirty-five to forty-five minutes to complete.

10.1.5 Measures

Felt and Expressed Emotion. An annotated copy of the questionnaire[107] appears in Appendix I. Parrott and Hertel (1999) state that: "[r]esearch that incorporates emotional states into its design requires that the quality and intensity of the emotional state be assessed in some way" (p. 71). We adopted a multimethod approach to the measurement of felt emotional states in subjects and of expressed emotion in the video vignettes. This was reflected in the use of both dimensional and categorical measurement approaches. The six-item pleasure component of the PAD measure (Russell & Mehrabian, 1974a, b) was included as a dimensional measure of the valence of felt emotion in subjects. The PAD involves nine-point semantic differential scales. For instance, the first item of the measure ranged from *Happy* (1) to *Unhappy* (9)[108].

Dual measurement (in observer and actor) is necessary to assess the occurrence of emotional contagion (Levenson, 1996). Accordingly, items which assessed the subject's felt emotion were modified to measure expressed emotion in the actor. The PAD was reconfigured via instructions to subjects in order to assess expressed emotion in the actor portraying the physician (see Kring & Sloan, 1991; Kring & Tomarken, 1993). An additional item based on the Affect Grid (Russell et al., 1989) provided a global measure of the valence dimension of subjects' feelings. As in the case of the PAD component measure, this item was reconfigured and directed at assessing the emotional displays of the service provider. In both cases, it was scaled from *Extremely Unpleasant* (1) to *Extremely Pleasant* (9). A common

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107 The questionnaire which appears in Appendix I is a reduced version of the actual questionnaire distributed to subjects. Additional data were gathered whose treatment is beyond the scope of this dissertation. Hence, they have been omitted. Furthermore, the original questionnaire was printed on legal-sized paper (8.5" by 14"). It appears here in letter-sized format (8.5" by 11").

108 For the purposes of analysis, the original scaling of PAD items was reversed to reflect the direction of the scaling of the other measures of emotion that were used.

categorical approach to the measurement of emotion (e.g., Ekman, 1972; Ekman & Friesen, 1971, 1975; Ekman et al., 1980; Hess, Blairy, & Kleck, 1997; McHugo et al., 1985; Way & Masters, 1996) was also included in the questionnaire. Accordingly, subjects were asked to rate the intensity of a number of categorical affective states they may have experienced while watching the film and the intensity of categorical affective states expressed in the film (Hansen & Shantz, 1995; Hatfield et al., 1995; Hsee et al., 1990, 1992, 1993; McHugo et al., 1985; Wehrle et al., 2000). The intensity scales ranged from *Nothing at All* (0) to *Maximal* (10) (for a discussion of this scale format, see Hsee et al., 1990; 1992; 1993). A total of six affective state labels were provided to subjects: *happiness, sadness, anger, disgust, contempt, and fear*. These categories represent basic or fundamental emotions (see Ekman & Friesen, 1975; Ekman, 1992a, b, c; Izard, 1977). Despite their shortcomings (see Russell, 1993), self-report ratings based on this approach typically result in strong agreement among subjects with respect to most categories of basic emotions including sadness and happiness (see Alvarado, 1997).

Analogue categorical measures designed to assess the emotional displays of the actor provided more specific manipulation checks of the valence treatment. These items also served in assessing the occurrence of emotional contagion in subjects (observers). However, only assessments of displayed *happiness* and *sadness* were deemed relevant and the remaining affective states were to be considered as distracters (see Hsee et al., 1990, 1992, 1993). In one study of emotional contagion, self-report measures of the internal feeling state component of emotion emerged as more powerful indicators of subjects' emotional states than an approach based on assessments by expert judges of the expressive response component (see Uchino et al., 1991; cf. Dimberg, 1990a; Levenson, 1996; Lundquist & Dimberg, 1995).

Health Outcome. A single item measured the perception of the subject's health outcome ("Rate your health outcome in your encounter with this physician"). This item represented the manipulation check for the health outcome treatment. It was scaled from *Very Negative* (1) to *Very Positive* (7).

Appropriateness. One item measured the appropriateness of the physician's

emotional behavior ("The emotions displayed by the physician were:"). This item was scaled from *Not at all Appropriate* (1) to *Entirely Appropriate* (7).

Attribution. Dan Russell's (1982; see also Russell & McAuley, 1986; Weiner, 1986) *Causal Dimension Scale* was included in the questionnaire. It was directed at assessing the reasons why the subject thought the service provider displayed the emotions conveyed in the vignette. The nine items were assessed over five-point scales. For instance, the first item of the *locus* (internal-external) dimension had anchor points: *Reflects an aspect of himself* (1) and *Reflects an aspect of the situation* (5).

Service Quality. As a measure of service quality, the performance-based five-dimensional component of SERVQUAL was used. The items were of Likert-type with anchor points *Strongly Disagree* (1) and *Strongly Agree* (7). The performance-based component is taken to constitute a measure referred to as SERVPERF (Cronin & Taylor, 1992; 1994; Taylor & Cronin, 1994). Our choice was motivated by a variety of studies which largely support the performance-based measure over the original expectancy disconfirmation framework (e.g., Babakus & Boller, 1992; Boulding et al., 1993; Cronin & Taylor, 1992; Mangold & Babakus, 1993; Peter et al., 1993; Teas, 1993). The content of SERVQUAL (Parasuranam et al., 1988) has been adapted to assess service quality in a variety of settings. Applications in health care settings are numerous (e.g., Babakus & Mangold, 1992; Bebko & Garg, 1995; Bowers, Swan, & Kochler, 1994; Brown & Swartz, 1989; Clow, Fischer, & O'Bryan, 1995; Headley & Miller, 1993; Lytle & Mokwa, 1992; Reidenbach & Sandifer-Smallwood, 1990; Wallbridge & Delene, 1993; Woodside et al., 1989). Service quality has been conceptualized along functional and technical components (see Asubonteng et al., 1996; Grönroos, 1990; Lehtinen & Lehtinen, 1982; Parasuranam et al., 1985; Swartz & Brown, 1989). The *reliability* dimension of SERVQUAL has been taken as an indicator of technical service quality whereas *responsiveness*, *assurance*, and *empathy* have been taken to reflect functional service quality (Mittal & Lassar, 1998).

Relational-Interactional Quality. Given the generality of SERVQUAL's content

in its skeletal form and the problems[109] associated with the use of this measure (see Asubonteng et al., 1996; Oliver, 1993a), a battery of thirteen additional items was generated to more directly assess the relational-interactional component of service quality with particular emphasis on emotional labor in therapy professions. The items were of Likert-type with anchor points *Strongly Disagree* (1) and *Strongly Agree* (7). The content of these items was mostly based on a review of the literature on patient-physician relations (see Cohen-Cole, 1991; Frankel, 1995; Hearn, 1987; James, 1989; Lazare, 1989; Novack, 1987; Peabody, 1927; Rogers, 1975; Squier, 1990; for comparative discussions of therapy relations in the broader context of various types of services occupations, see Goodwin & Radford, 1993; Hochschild, 1983a; Shostack, 1987). Two potentially distinct conceptual dimensions were proposed: (a) *conveyance* and (b) *responsiveness*.

The former involved the conveyance of emotional labor with respect to a series of attributes deemed important and normative in a medical encounter. Specifically, the proposed items designed to assess this dimension tapped the display of compassion, caring, concern, interest, empathy, support, and understanding (7 items). *Conveyance* was deemed rather general because the provision of the attributes included in this dimension may be germane to a variety of service occupations. On the other hand, the latter dimension provided specificity based on suggested behavioral repertoires more exclusive to the occupation of physician. This dimension essentially reflected a relational orientation via close involvement with the patient and displayed attention to his/her needs. The six proposed items designed to assess this dimension were based on the following themes: elicitation of the patient's

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109 An immediate problem specific to the use of SERVQUAL in the present study rested in a lack of information provided to subjects with respect to some attributes assessed by the measure's item content. In essence, the subjects were exposed to selected information delivered in a video segment and then asked to provide service quality assessments. Although every effort was deployed during the production of the video segments to show for instance the facilities of the clinic, the video to which subjects were exposed was in effect the only information source provided to them and may have been insufficient to effectively gauge the provision of some attributes of service assessed by SERVQUAL. An examination of SERVQUAL's content implies that some responses most probably represented rather indirect inferences especially with respect to items whose content implies prior knowledge of and continuing interaction with the provider (for example, Item P12 in Appendix I implies more than one encounter with the provider: "This physician is not always willing to help a patient"). SERVQUAL appears more suited to assessments of known service organizations or those with which the subject has had some experience (e.g., Cronin & Taylor, 1992).

perspective (1 item); active listening to the patient (1 item); understanding the patient's experiences with an illness (1 item); reflecting (1 item) and legitimizing (1 item) the patient's feelings; and establishing a partnership with the patient (1 item). The dimension most closely associated to Hochschild's (1983a) notion of *emotional labor* was *conveyance.*

Prior to inclusion of these items in the questionnaire, content validity checks were undertaken (see Kirlinger, 1986; Shimp & Sharma, 1987). Two medical practitioners were provided with the conceptual definition of each construct and asked to rate each item with respect to how it reflects its intended construct. The procedures and rating scales that were used essentially mirrored those in Shimp and Sharma (1987). The thirteen items included in the questionnaire emerged as face valid.

When both dimensions are considered simultaneously, together they reflect an interactional perspective on the provision of service in medical occupations. The *responsiveness* dimension in particular implicitly addresses the provision of a variety of responses to a patient based on considerations of feedback from the patient during interaction. It implies that the provision of emotional labor is not done in a vacuum but rather adjusted in relation to the immediate situation at hand.

Satisfaction. The use of single-item measures of satisfaction is not uncommon (e.g., Cronin & Taylor, 1992). So as to avoid the problems associated with reliance on single-item measures (see Peter, 1979), multiple indicators were generated and used for the measurement of satisfaction. One item was measured in the same fashion as the discrete categories of emotion described above. The item associated the semantic category *satisfaction* to a scale which ranged from *Nothing at All* (0) to *Maximal* (10). Another item also assessed overall satisfaction ("My feelings towards this physician's services can best be described as:" (Cronin & Taylor, 1992). Satisfaction has been related to various aspects of service (Oliver, 1996) and various forms of satisfaction have been proposed (e.g., Garbarino & Johnson, 1999). Accordingly, additional items were generated which tapped level of satisfaction with the interactional component of service delivery ("My feelings towards how this physician delivered his service to me can best be described as:") and with the diagnosis ("My feelings towards this physician's proposed diagnosis and treatment can best be described as:"). A

final item assessed satisfaction with the way the physician related emotionally to the patient ("My feelings towards the way this physician related to me emotionally was:"). The four items were scaled from *Very Unsatisfied* (1) to *Very Satisfied* (7) (see Cronin & Taylor, 1992).

Behavioral Intentions. Important behavioral intentions in health care settings have included a "willingness to return" (Bowers et al., 1994; Headley & Miller, 1993; Reidenbach & Sandifer-Smallwood, 1990; Woodside et al., 1989). Three items reflecting this behavioral intention were generated ("How likely are you to return to this doctor"/ "to make another appointment with this physician"/ "to respect your next appointment with this doctor"). An additional behavioral intention indicator was based on a variation of an item found in Swinyard (1993). This item assessed the likelihood of spending more time with the provider ("How likely are you to spend more time with this doctor"). The four items were scaled from *Very Unlikely* (1) to *Very Likely* (7) (see Swinyard, 1993).

Emotional Expressivity. The positive (4 items) and negative (6 items) components of Gross and John's (1997) expressivity measure were included in the questionnaire. They were to be used in the impression formation aspect of the study. Emotional expressivity represents a disposition on which judgments of self and others may be made (e.g., Gross & John, 1997; Kring et al., 1994). These items were modified to assess the expressivity of the provider. This modification is common (see Gross & John, 1997; Kring et al., 1994). The items were scaled from *Strongly Agree* (1) to *Strongly Disagree* (7).

Quantitative Covariate. One final measure was included to potentially absorb unexplained variance in dependent variables related to emotional contagion. This covariate was the recently proposed fifteen-item measure of *susceptibility to emotional contagion* (Doherty, 1997). The items were assessed on five-point scales with anchor points: *Never* (1) and *Always* (5). This covariate represents an individual difference variable or a rather stable personality trait (for a discussion of dispositional factors, see Baron & Kenny, 1986).

10.2 Results

10.2.1 Manipulation Checks

Manipulation checks indicated that both the valence of expressed emotion and health outcome treatments were found to have significant effects. The effects of the valence of expressed emotion treatment were significant on the mean rating of the six-item pleasure component of the PAD (Russell & Mehrabian, 1974a, b) directed at assessing the emotional displays of the actor ($\bar{x}$: positive/pleasant emotional displays = 6.63, $\bar{x}$: negative/unpleasant emotional displays = 3.64, $F(1, 108) = 70.461$, $p < .001$). Prior to generating an average score on this six-item composite, a principal components exploratory factor analysis was performed. A single factor clearly dominated the six-item composite (Eigenvalue 1 = 4.38; percentage of total variance = 73%). All factor loadings were greater than .75 and the Cronbach's coefficient alpha estimate was $\alpha = .925$. Results indicating an effective manipulation also appeared with respect to the single item measure reflecting the bipolar pleasure dimension of the Affect Grid (Russell et al., 1989) ($\bar{x}$: positive/pleasant emotional displays = 5.51, $\bar{x}$: negative/unpleasant emotional displays = 2.94, $F(1, 114) = 44.79$, $p < .001$).

A manipulation check based on categorical ratings of expressed *happiness* and *sadness* was also carried out. With respect to expressed *happiness*, categorical intensity ratings were significantly higher in the positive than in the negative emotional displays condition ($\bar{x}$: positive/pleasant emotional displays = 7.35, $\bar{x}$: negative/unpleasant emotional displays = 0.94, $F(1, 107) = 196.8$, $p < .001$). In the case of expressed *sadness*, categorical intensity ratings were significantly lower in the positive than in the negative emotional displays condition ($\bar{x}$: positive/pleasant emotional displays = 1.31, $\bar{x}$: negative/unpleasant emotional displays = 7.17, $F(1, 107) = 127.3$, $p < .001$). The strong effects of these analyses indicated that the two vignettes designed to portray happiness conveyed happiness much more intensely than sadness and that their counterparts designed to portray sadness conveyed sadness much more intensely than happiness.

The patient outcome manipulation also had its intended effect. This treatment produced a significant effect on the single item measure which assessed whether the health

outcome was positive or negative ($\bar{x}$: positive health outcome/no diabetes = 5.00, $\bar{x}$: negative health outcome/diabetes = 2.33, $F(1, 114) = 84.34$, $p < .001$). In sum, the data of both manipulation checks suggested that the actor's performance was highly effective.

10.2.2 Tests of Hypotheses: Provider Emotional Displays and Consumer Emotion

Appropriateness of Emotional Displays. Hypothesis 1a proposed that the interaction between valence of the provider's emotional displays and the context (health outcome) in which they were expressed will explain more variance in appropriateness ratings than the direct influences of either valence or social context (health outcome) alone. A two-way full factorial analysis of variance[110] was performed. It had independent variables of *valence of emotional displays* (positive/pleasant vs. negative/unpleasant) and *health outcome* (positive/no diabetes vs. negative/diabetes). The hypothesis was strongly supported ($F(1,112) = 100.99$, $p < .001$). As shown in Table 8 and Figure 18, only the main effect for *valence of emotional displays* emerged as significant whereas a much greater amount of variance was explained by the highly significant two-way interaction. Other cell and treatment statistics are shown in Table 9. A four-group comparison test of these data was carried out. It was based on a Bonferroni-type adjustment (LSD test with significance level = .008). Results indicated that all comparisons except one (points 3 vs. 4 in Figure 18) were significant.

Deep Acting and Emotional Deviance Effects on Perceived Appropriateness.

Hypothesis 1b held that emotional displays which stem from deep acting will be judged more appropriate than those which reflect emotional deviance. Displays from deep acting were conveyed in two of the four vignettes whereas the other two portrayed emotional deviance. A one-way analysis of variance was performed. The independent variable was

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[110] Analyses of variance were carried out with the statistical package SPSS-X. All designs were of the between-subjects variety. Because of unequal cell sizes, the MANOVA procedure with a METHOD=SSTYPE(SEQUENTIAL) subcommand was used in order to generate this and subsequent univariate and multivariate analyses of variance results (see Levine, 1991; see also Keppel, 1991; Tabachnik & Fidell, 1996). This method of partitioning sums of squares is an orthogonal decomposition. In turn, this allows the sums of squares in a model to add up to the total sums of squares.

Table 8

Valence of Emotional Displays and Health Outcome Effects on Appropriateness Rating

Source	df	Sum of Squares	MS	F	p
Between Subjects (Total)	115	316.78	2.75		
Model	3	154.56	51.52	35.57	0.000
Within Cells (Error)	112	162.23	1.45		
Valence of Emotional Displays (VED)	1	8.08	8.08	5.58	0.022
Health Outcome (HO)	1	0.21	0.21	0.14	0.707
VED x HO	1	146.28	146.28	100.99	0.000

R-Squared = .488
Adjusted R-Squared = .474

Table 9

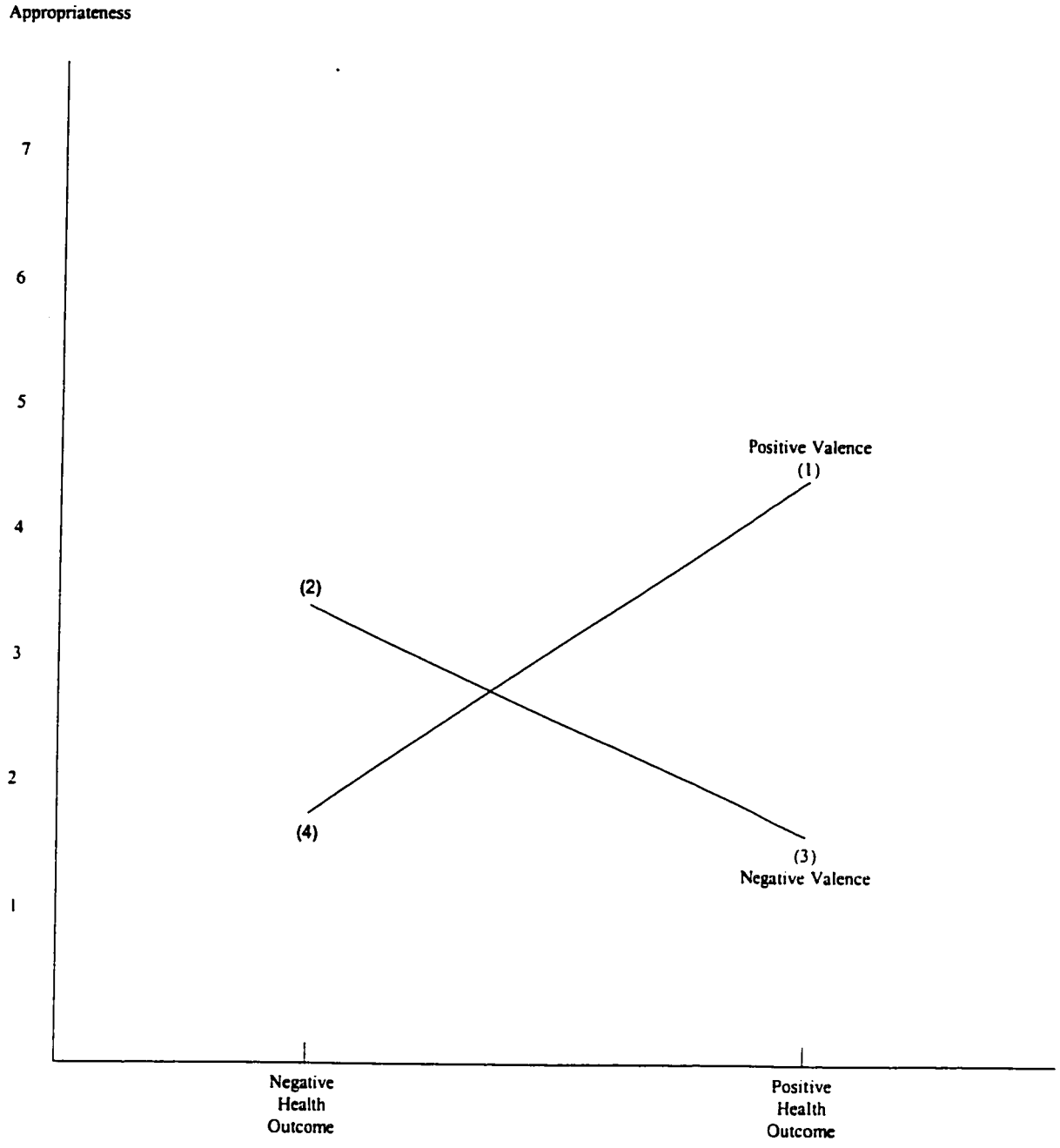
Effects on Appropriateness Rating: Treatment and Cell Summary Statistics

	V	H	N	$\bar{x}$	SD
Overall:	.	.	116	2.96	1.66
VED:					
Positive Displays	1	.	47	3.28	2.05
Negative Displays	2	.	69	2.74	1.38
HO:					
No Diabetes	.	1	59	2.90	1.79
Diabetes	.	2	57	3.02	1.57
VED x HO:					
Valence x Health Outcome	1	1	22	4.68	1.59
	2	2	32	3.78	0.97
	2	1	37	1.84	0.76
	1	2	25	2.04	1.57

Note: Condition numbers referred to in the text and figures reflect the following combinations of the two levels of the factors *valence of emotional displays* and *health outcome*: Condition 1 = (1,1); Condition 2 = (2,2); Condition 3 = (2,1); and Condition 4 = (1,2).

Figure 18

Effects of Displayed Valence and Health Outcome on Appropriateness



displays category[111] (displays from deep acting vs. emotional deviance). Hypothesis 1b was strongly supported ($\bar{x}$: deep acting = 4.15, $\bar{x}$: emotional deviance = 1.92, $F(1, 114) = 94.25$, $p < .001$). Accordingly, displays which stemmed from deep acting emerged as significantly more appropriate than those which reflected emotional deviance.

The Effects of Cognitive Appraisal of Deep Acting and Emotional Deviance on Emotion.

Hypothesis H2a proposed that the appropriate emotional displays which stem from deep acting will result in a positive (pleasant) emotional state in the consumer and that inappropriate emotional displays reflecting emotional deviance will result in a negative (unpleasant) emotional state in the consumer. A one-way analysis of variance was performed. The independent variable was *displays category* (displays from deep acting vs. emotional deviance). The dependent variable consisted in mean ratings on the pleasure component of the PAD directed at assessing the subject's felt affective state. This hypothesis was disconfirmed ($\bar{x}$: deep acting = 4.17, $\bar{x}$: emotional deviance = 4.03, $F(1, 114) = 0.18$, $p > .1$). Prior to generating a mean score on the pleasure component of the PAD directed at assessing the subject's felt affective state, a principal components factor analysis revealed a single underlying factor (Eigenvalue 1 = 4.05; percentage of total variance = 67.5%). Factor loadings ranged from 0.697 to 0.880. The Cronbach's coefficient alpha estimate for the composite was $\alpha = 0.902$.

The Effects of Cognitive Appraisals of Valence of Emotional Displays and of Health Outcome on Emotion.

Hypotheses 2b and 2c suggested that independent cognitive evaluations of the valence of emotional displays and of the health outcome will significantly impact the valence of the consumer's emotional state. A two-way full factorial analysis of variance was

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[111] The independent variable *displays category* reflects our conceptualization of Hochschild's (1983a) work. The category of displays which stems from *deep acting* is represented in two vignettes in which positive (negative) emotional displays were conveyed and the health outcome was positive (negative). *Emotional deviance* was reflected in the other two vignettes in which positive (negative) emotional displays were portrayed when the health outcome was negative (positive). *Displays category* therefore represents video conditions and subsumes permutations of the factors *valence of emotional displays* and *health outcome*. One problem with this categorization is that it involves a one-way design and thus no assessment of the effects of the interaction which however is enabled by the factorial design.

performed. The independent variables were *valence of emotional displays* (positive/pleasant vs. negative/unpleasant) and *health outcome* (positive vs. negative). The dependent variable was once again the pleasure component of the PAD directed at assessing the valence of subjects' emotional states. Both hypotheses were strongly supported (H2b: $F(1,112) = 12.69$, $p < .01$; H2c: $F(1,112) = 30.88$, $p < .001$). As shown in Table 10 and Figure 19, both main effects were significant whereas the two-way interaction was non-significant. Other cell and treatment statistics appear in Table 11.

Emotional Contagion in the Consumer. In their studies of emotional contagion, Hatfield and her associates (e.g., Hsee et al., 1990, 1992, 1993) used a linear transformation of scores on two categorical scales of emotion. This resulted in a dependent variable type which they called the Index of Happiness (for a discussion of this scale's reliability and validity, see Borg, 1982). The calculation of this index involved subtracting subjects' intensity ratings on a categorical *sadness* scale from their ratings on a categorical *happiness* scale. This transformation was done with respect to felt (subjects' self-reports) and observed (judge's ratings of subjects' expressions) emotions. Thus, two Indexes of Happiness were generated in these studies. A similar transformation was used here. However, it was applied only to subjects' self-report assessments of their emotional states (the behavioral/expressive component of emotion was not addressed in the present study). The categorical intensity scales which appeared in the questionnaire (see Appendix I) ranged from *Nothing at All* (0) to *Maximal* (10). Hence, possible scores on the computed Index of Happiness ranged from *Maximally Sad* (-10) to *Maximally Happy* (+10).

Hypothesis H3a suggested that emotional contagion occurs in the service encounter and hypothesis H3b held that variations in social context will have no effect on emotional contagion in the service encounter. A two-way full factorial analysis of variance was conducted. The dependent variable was the computed Index of Happiness. One independent variable was *displayed categorical emotion*[112] (happiness vs. sadness) and the other was

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[112] Although this IV was presented earlier as *valence of emotional displays*, a successful manipulation check was also carried out at the categorical level to ensure that *happiness* was displayed in the positively valenced conditions and *sadness* in the negatively valenced conditions (see also Figure 22). The labeling of this IV as *valence of emotional displays* or as *displayed emotion category* reflects the

health outcome (positive vs. negative). Mean scores on the *susceptibility to emotional contagion* scale (Doherty, 1997) were included as a covariate. Principal components factor analyses were performed on the fifteen-item scale prior to its inclusion in the ANOVA model. Although Doherty (1997) opted for a unidimensional solution, he discussed the possibility of a multidimensional structure. Accordingly, multiple solutions were generated and assessed. The one-dominant factor solution was adopted here because alternate solutions were non-interpretable and the Cronbach's alpha estimates for resulting composites were all below $\alpha = 0.6$. In the case of the chosen solution, this estimate was $\alpha = 0.72$.

If emotional contagion occurs in the service encounter, scores on the Index of Happiness should be influenced by the actor's emotional displays. As shown in Table 12 and Figure 20, Hypothesis H3a was strongly supported ($F(1,108) = 21.45$, $p < .001$). On the other hand, H3b was rejected because the main effect for health outcome was significant ($F(1,108) = 20.42$, $p < .001$). Other cell and treatment statistics are shown in Table 13. The effect of the covariate on the dependent variable was non-significant ($F = 2.69$; $p > .05$).

Emotional Contagion or Cognitive Appraisal in the Consumer. A four-group comparison test of these data was carried out. It was based on a Bonferroni-type adjustment (LSD test with significance level = .008). Results indicated that all comparisons except one (points 3 vs. 4 in Figure 20) were significant. Hypothesis H4a proposed that appropriate emotional displays will result in emotional contagion rather than cognitive appraisal as the determining mechanism of the consumer's emotional response. In Figure 20, conditions in which appropriate displays were conveyed are depicted by points 1 and 2. These conditions were associated to the highest (point 1) and lowest (point 2) ratings on the Index of Happiness, respectively. Conditions where displays of emotion were adjusted to contextual requirements therefore appeared most conducive to the occurrence of emotional contagion or matched emotional states. Accordingly, hypothesis H4a appeared tentatively supported. On the other hand, conditions in which inappropriate emotional displays were conveyed (points 3 and 4) lie in midrange of points 1 and 2 in Figure 20 and their paired comparison

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literature and rationale used to generate a particular hypothesis.

Table 10

Valence of Emotional Displays and Health Outcome Effects on Experienced Pleasure

Source	df	Sum of Squares	MS	F	p
Between Subjects (Total)	115	368.67	3.21		
Model	3	107.38	35.79	15.34	0.000
Within Cells (Error)	112	261.29	2.33		
Valence of Emotional Displays (VED)	1	29.59	29.59	12.69	0.001
Health Outcome (HO)	1	0.21	0.21	30.88	0.000
VED x HO	1	5.74	5.74	2.46	0.120

R-Squared = .291
Adjusted R-Squared = .272

Table 11

Effects on Experienced Pleasure: Treatment and Cell Summary Statistics

		VED	HO	N	$\bar{x}$	SD
Overall:		.	.	116	4.09	1.79
VED:						
	Positive Displays	1	.	47	4.71	2.11
	Negative Displays	2	.	69	3.68	1.41
HO:						
	No Diabetes	.	1	59	4.83	1.81
	Diabetes	.	2	57	3.33	1.42
VED x HO:						
	Valence x Health Outcome	1	1	22	5.83	1.88
		2	2	32	3.03	0.96
		2	1	37	4.24	1.5
		1	2	25	3.71	1.8

Note: Condition numbers referred to in the text and figures reflect the following combinations of the two levels of the factors *valence of emotional displays* and *health outcome*: Condition 1 = (1,1); Condition 2 = (2,2); Condition 3 = (2,1); and Condition 4 = (1,2).

Figure 19

Effects of Displayed Valence and Health Outcome on Experienced Valence

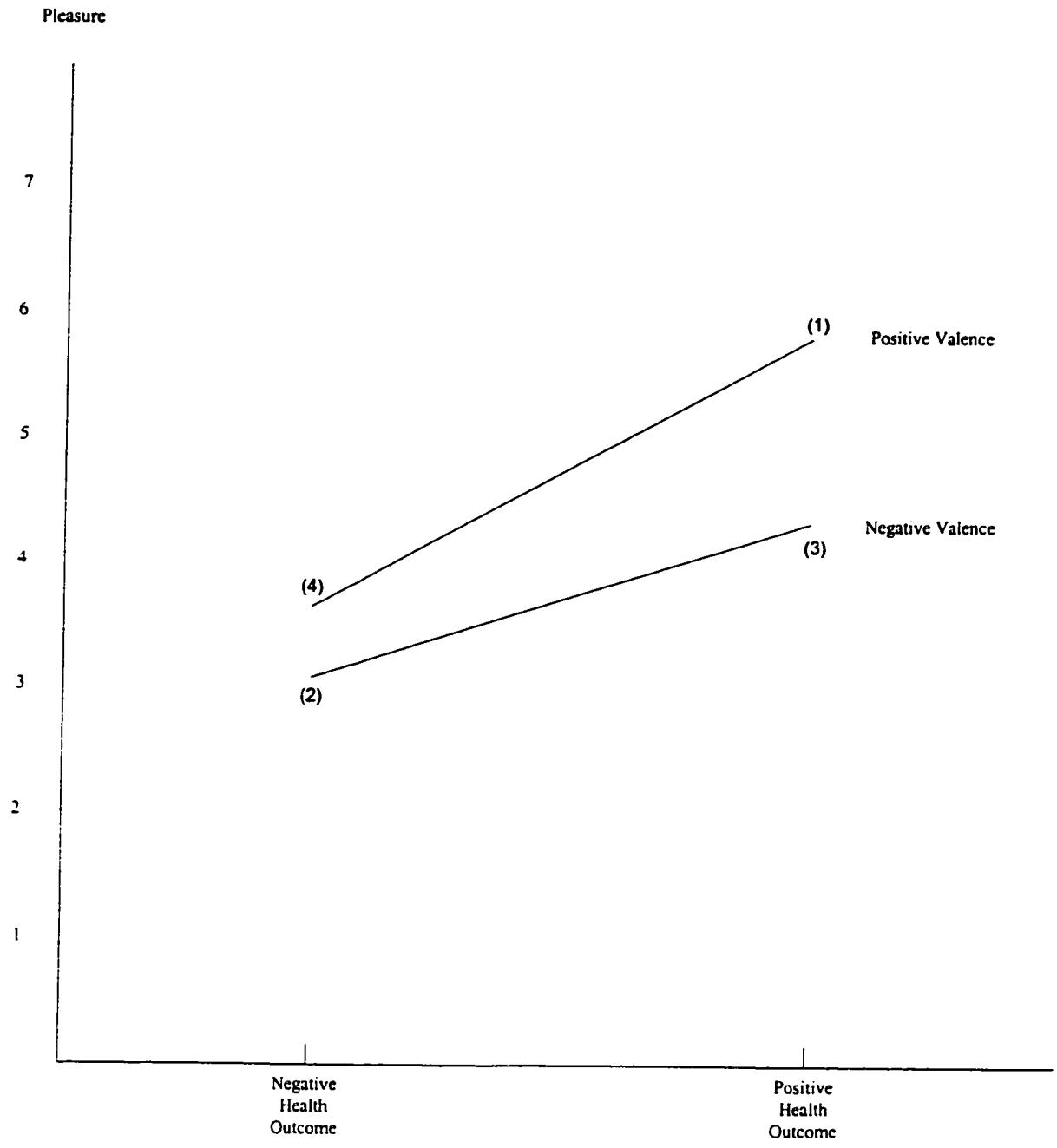


Table 12

Displayed Categorical Emotion and Health Outcome Effects on Index of Happiness

Source	df	Sum of Squares	MS	F	p
Between Subjects (Total)	112	2916.92	26.04		
Model	4	898.53	224.63	12.02	0.000
Within Cells (Error)	108	2018.39	18.69		
Displayed Categorical Emotion (DCE)	1	400.88	400.88	21.45	0.000
Health Outcome (HO)	1	381.61	381.61	20.42	0.000
DCE x HO	1	3.01	3.01	0.16	0.689
Regression	1	50.33	50.33	2.69	0.104
R-Squared = .308					
Adjusted R-Squared = .282					

Table 13

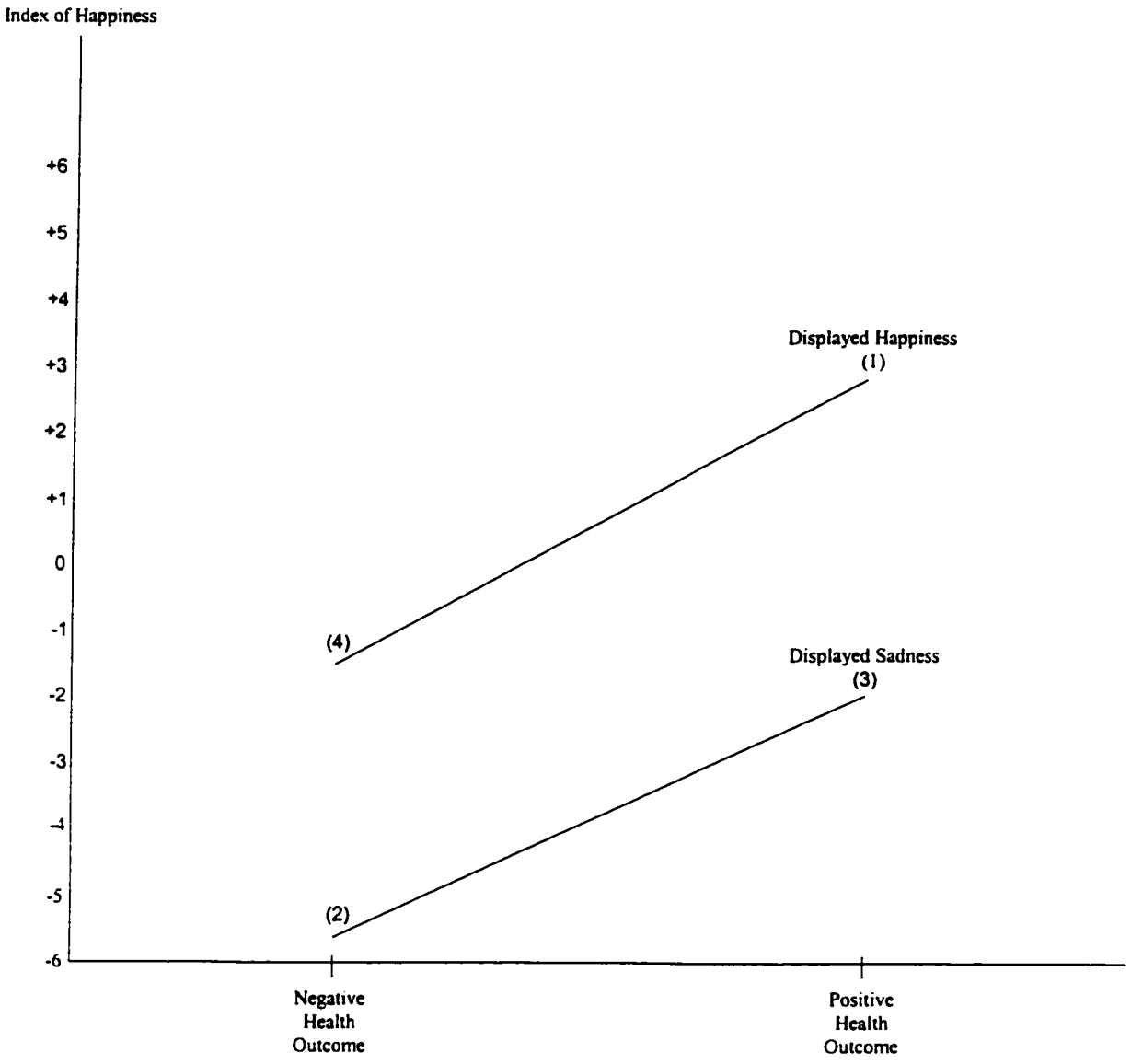
Effects on Index of Happiness: Treatment and Cell Summary Statistics

	DCE	HO	N	$\bar{x}$	SD
Overall:	.	.	113	-2.03	5.10
DCE:					
Happiness	1	.	45	0.42	5.11
Sadness	2	.	68	-3.65	4.44
HO:					
No Diabetes	.	1	57	-0.37	5.11
Diabetes	.	2	56	-3.71	4.56
DCE x HO:					
Category x Health Outcome	1	1	20	2.70	4.78
	2	2	31	-5.58	3.53
	2	1	37	-2.03	4.52
	1	2	25	-1.40	4.68

Note: Condition numbers referred to in the text and figures reflect the following combinations of the two levels of the factors *valence of emotional displays* and *health outcome*: Condition 1 = (1,1); Condition 2 = (2,2); Condition 3 = (2,1); and Condition 4 = (1,2).

Figure 20

Effects of Displayed Valence and Health Outcome on Index of Happiness



emerged as non-significant. Unregulated emotional displays appear to engage cognition and interfere with or disrupt emotional contagion. In turn, this finding appears to tentatively support hypothesis H4b which held that inappropriate emotional displays will result in cognitive appraisal rather than emotional contagion as the determining mechanism of the consumer's emotional response.

Figure 21 provides self-report ratings of subjects' felt emotion on a broader range of categorical emotion scales with respect to each video condition. Alternatively, Figure 22 relates subjects' ratings of the emotional displays of the provider on identical categorical intensity scales. In Figures 21 and 22, mean intensity ratings on categorical scales in conditions 1 (expressed happiness/positive health outcome) and 2 (expressed sadness/ negative health outcome) point to emotional contagion or matched emotional states between consumer (felt emotion) and provider (displayed emotion). In Figure 21, *felt happiness* ($\bar{x}$ = 4.68) clearly predominates the spectrum of basic consumer emotions in Condition 1 whereas *felt sadness* ($\bar{x}$ = 6.66) does so in Condition 2 with *felt fear* ($\bar{x}$ = 6.03) as a close second. In condition 3 (expressed sadness/positive health outcome), *felt sadness* ($\bar{x}$ = 4.35) is the dominant and is again followed by *felt fear* ($\bar{x}$ = 3.81). In condition 4 (expressed happiness/negative health outcome), *felt anger* ($\bar{x}$ = 5.04) is the dominant and *felt disgust* ($\bar{x}$ = 4.74) appears as the second most intensely felt emotion.

In looking at the pattern of subjects' emotional reactions across the spectrum of the six basic emotions suggests that Condition 1, the "least eventful" condition among the four, was most conducive to emotional contagion in that matching of emotional states predominantly occurred. Exposure to the other three conditions resulted in negative emotional states and in each condition, relatively higher ratings on at least two basic negative emotions tended to be elicited. It appears that in the "more eventful" conditions, two emotion processes appeared to potentially be operating: emotional contagion and cognitive appraisal. This observation appears to lend weight to hypothesis H4c which held that discrete consumer emotions which do not match or reflect the emotions displayed by the provider will be reported when failure occurs in a component of service.

To further shed light on these findings, a two-way full factorial multiple analysis of

Figure 21

Mean Ratings of Felt Categorical Emotions

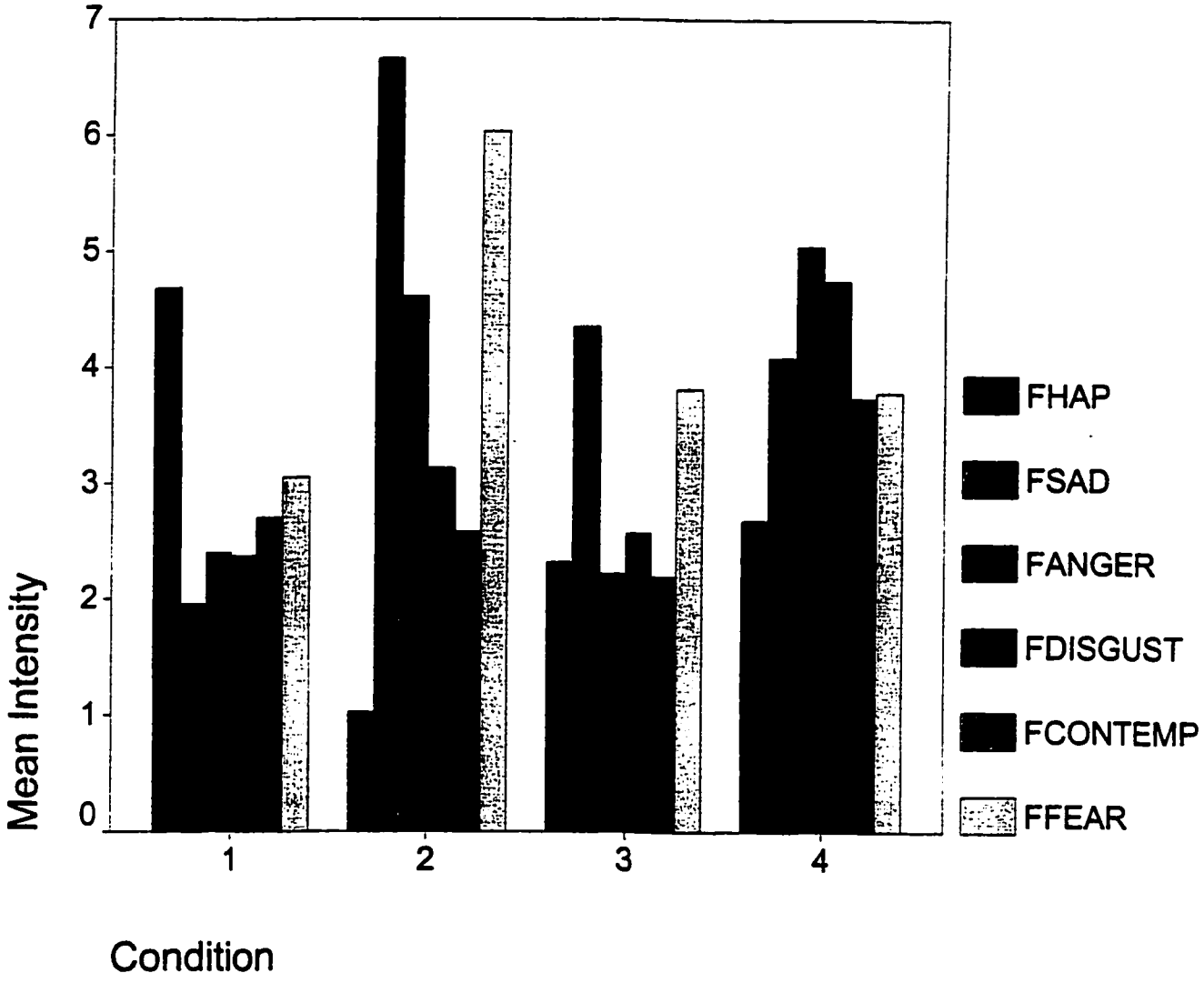
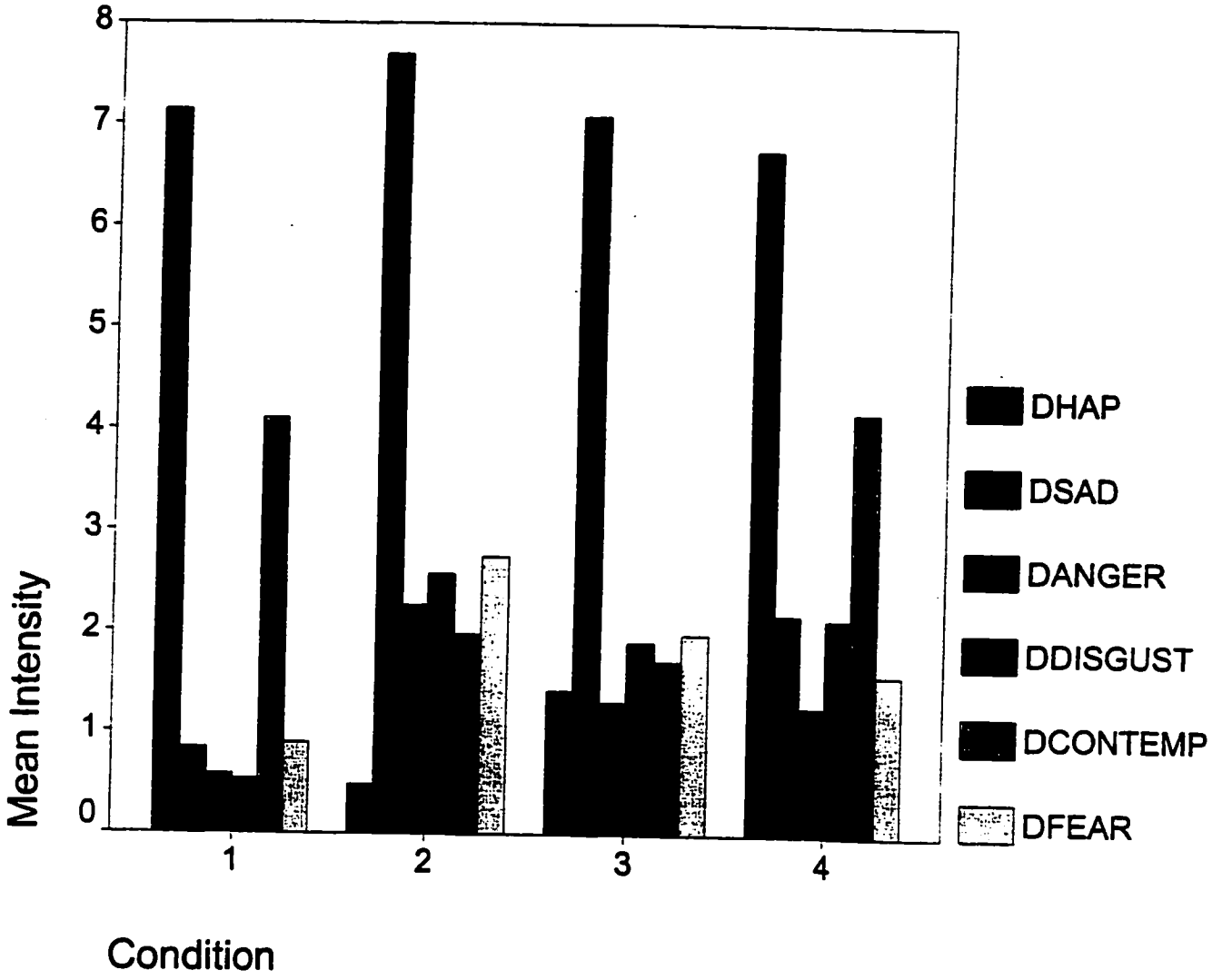


Figure 22

Mean Ratings of Displayed Categorical Emotions



variance (MANOVA) was conducted. As in all analyses undertaken herein, a sequential adjustment for nonorthogonality was performed. The underlying relationships were clarified by univariate Fs and Roy-Bargmann step-down analyses[113] performed on prioritized DVs. The dependent variables were the ratings on the categorical intensity scales assessing *felt happiness*, *felt sadness*, *felt fear*, *felt anger*, *felt disgust*, and *felt contempt* (in order of priority). In order of entry, the independent variables were *displayed categorical emotion* (happiness vs. sadness) and *health outcome* (positive vs. negative). The omnibus MANOVA on the combined DVs showed significant main effects with respect to the Wilks' criterion (displayed categorical emotion: $F(6,97) = 6.47$, $p < .001$; health outcome: $F(6,97) = 4.39$, $p < .01$) but a non-significant interaction ($F(6,97) = .883$, $p > .1$).

Results of univariate and stepdown analyses are consolidated in Table 14. The established alpha level for each DV is reported along with the significance levels of stepdown Fs. Alpha was apportioned to achieve an experiment-wise error rate of 5%. For the main effect of *displayed categorical emotion*, *felt happiness*, *felt sadness*, *felt anger*, and *felt disgust* were significant. Under ANOVA, *felt fear* would have been significant but not *felt anger* or *felt disgust*. More specifically, the stepdown analyses revealed that unique contributions to predicting differences between subjects in conditions where *happiness* was displayed and those in conditions where *sadness* was expressed were made by four DVs: *felt happiness* (stepdown $F(1,102) = 11.652$, $p < .01$), *felt sadness* (stepdown $F(1,101) = 12.394$, $p < .01$), *felt anger* (stepdown $F(1,99) = 7.04$, $p < .01$), and *felt disgust* (stepdown $F(1,102) = 3.96$, $p < .05$), respectively. In comparison to subjects in conditions involving displayed *sadness*, subjects in conditions which involved displays of *happiness* reported feeling more

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113 A Roy-Bargmann stepdown analysis permits a statistically pure look at the significance of DVs with Type I error rate controlled (Tabachnik & Fidell, 1996). The priority order of DVs from most to least important was established based on the categorical intensity ratings reported in Figure 21. Given that the focus of this analysis rested on emotional contagion and thus matched emotional states, *felt happiness* and *felt sadness* were considered most important. In accordance with stepdown procedures, the highest priority DV, *felt happiness*, was tested in univariate ANOVA. The second priority DV, *felt sadness*, was tested in ANCOVA with *felt happiness* as the covariate. The third priority DV, *felt fear*, was assessed in ANCOVA with *felt happiness* and *felt sadness* as covariates, and so on. Next, marginal means were generated for each level of a factor when a DV boasted a significant stepdown F. Straightforward comparisons between adjusted means indicated the direction of a main effect on a DV (Tabachnik & Fidell, 1996).

Table 14

Manova Tests of the Effects of Displayed Categorical Emotion, Health Outcome, and Their Interaction on Categorical Intensity Ratings of Felt Emotions

IV	DV	Univariate F	p	df	Stepdown F	p	df	α
DCE								
	Happiness	11.652[a]	.001	1/102	11.652**	.001	1/102	.01
	Sadness	18.565[a]	.000	1/102	12.394**	.001	1/101	.01
	Fear	5.530[b]	.021	1/102	.053	.818	1/100	.01
	Anger	.670	.415	1/102	7.04**	.009	1/99	.01
	Disgust	.831	.364	1/102	3.964*	.049	1/98	.01
	Contempt	1.956	.165	1/102	.392	.533	1/97	.001
HO								
	Happiness	8.878[a]	.004	1/102	8.878**	.004	1/102	.01
	Sadness	11.102[a]	.001	1/102	7.26**	.008	1/101	.01
	Fear	8.996[a]	.003	1/102	2.067	.154	1/100	.01
	Anger	15.531[a]	.000	1/102	4.86*	.030	1/99	.01
	Disgust	3.104	.081	1/102	1.204	.275	1/98	.01
	Contempt	1.86	.176	1/102	.648	.423	1/971	.001
DCE x HO								
	Happiness	.488	.486	1/102	.488	.486	1/102	.01
	Sadness	.133	.716	1/102	.251	.617	1/101	.01
	Fear	.656	.420	1/102	.500	.481	1/100	.01
	Anger	.051	.821	1/102	.244	.622	1/99	.01
	Disgust	1.602	.208	1/102	2.847	.095	1/98	.01
	Contempt	.549	.460	1/102	.956	.331	1/97	.001

[a] Significance level cannot be truly evaluated but would reach $p < .01$ in univariate context.

[b] Significance level cannot be truly evaluated but would reach $p < .05$ in univariate context.

** $p < .01$

* $p < .05$

happy ($\bar{x}$: displayed happiness = 3.45[114], $\bar{x}$: displayed sadness = 1.68), less sad ($\bar{x}$: displayed happiness = 3.25, $\bar{x}$: displayed sadness = 5.30), more angry ($\bar{x}$: displayed happiness = 4.80, $\bar{x}$: displayed sadness = 2.83), and more disgusted ($\bar{x}$: displayed happiness = 3.83, $\bar{x}$: displayed sadness = 2.63).

For the main effect of *health outcome*, stepdown analyses suggested that unique contributions to the composite DV that best distinguished between subjects in conditions with a positive health outcome and conditions with a negative health outcome were made by three DVs: *felt happiness* (stepdown $F(1,102) = 8.878$, $p < .01$), *felt sadness* (stepdown $F(1,101) = 7.26$, $p < .01$), and *felt anger* (stepdown $F(1,99) = 4.86$, $p < .05$), respectively. Under ANOVA, *felt fear* would have been significant. Relative to subjects in conditions involving a negative health outcome, subjects in conditions with a positive health outcome reported being more happy ($\bar{x}$: positive health outcome = 3.31, $\bar{x}$: negative health outcome = 1.81), less sad ($\bar{x}$: positive health outcome = 3.45, $\bar{x}$: negative health outcome = 5.07), and less angry ($\bar{x}$: positive health outcome = 3.11, $\bar{x}$: negative health outcome = 4.47). Hypothesis H4c appears confirmed in that failure in either component of service resulted in emotions which did not match the emotions displayed by the provider. Pooled within-cell correlations among the DVs are shown in Table 15.

If present, multicollinearity along with the order of priority of DVs in stepdown analysis can have an impact on MANOVA solutions (Tabachnik & Fidell, 1996). Entries in Table 15 are suggestive of multicollinearity. Also, we based the order of entry of DVs in the stepdown analyses by giving priority to the felt emotions which should predictably arise from emotional contagion (*felt happiness* and *felt sadness*, respectively), this order may in fact be considered arbitrary especially if the underlying mechanism of emotion rests in cognitive appraisal. Furthermore, the univariate Fs pointed to significant effects of both IVs on *felt fear* but the stepdown Fs did not. *Felt fear* appears especially relevant to reactions to a negative health outcome. In addition, Figure 21 suggests that this emotion is relatively important in reactions to conditions 2, 3, and 4 and that its reported intensity ratings are perhaps

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[114] This value represents an adjusted marginal mean. Subsequent mean values were computed by taking into account the pattern of differences measured on previously entered Dvs (see Keppel, 1991).

Table 15

Pooled Within-Cell Correlations Among Six DVs

	Felt Hap.	Felt Sad.	Felt Fear	Felt Anger	Felt Disg.	Felt Cont.
Felt Happiness	2.585[a]					
Felt Sadness	-.188	2.983				
Felt Fear	-.085	.498	3.201			
Felt Anger	-.137	.387	.358	3.177		
Felt Disgust	-.125	.425	.422	.528	3.126	
Felt Contempt	.200	.104	.269	.215	.199	2.860

[a] Standard deviations appear in the diagonal.

statistically variable across conditions.

For these reasons, we conducted a series of more stringent analyses of variance where each felt emotion category was considered separately as a DV and the remaining categories were entered as covariates. The results from the six separate analyses of variance are consolidated in Table 16. Correlations between each DV and its five covariates appear in the rows of Table 17. For the main effect of *displayed categorical emotion*, the analyses revealed that significant differences between subjects in conditions where *happiness* was displayed and those in conditions where *sadness* was expressed appeared with respect to *felt happiness* ($F(1,97) = 5.05$, $p < .05$) and *felt sadness* ($F(1,97) = 12.76$, $p < .01$), respectively. In comparison to subjects in conditions involving displayed *sadness*, subjects in conditions which involved displays of *happiness* reported feeling more happy ($\bar{x}$: displayed happiness = 3.13[115], $\bar{x}$: displayed sadness = 1.87) and less sad ($\bar{x}$: displayed happiness = 3.33, $\bar{x}$: displayed sadness = 5.25).

For the main effect of *health outcome*, the dependent variables that best distinguished between subjects in conditions with a positive health outcome and conditions with a negative health outcome were *felt happiness* ($F(1,97) = 4.58$, $p < .05$) and *felt anger* ($F(1,97) = 5.31$, $p < .05$), respectively. Relative to subjects in conditions involving a negative health outcome, subjects in conditions with a positive health outcome reported feeling more happy ($\bar{x}$: positive health outcome = 3.09, $\bar{x}$: negative health outcome = 1.92) and less angry ($\bar{x}$: positive health outcome = 3.03, $\bar{x}$: negative health outcome = 4.34). Hypothesis H4c again appears confirmed but only with respect to failure in *health outcome* where felt anger was reported. This finding also confirms H4d but again only with respect to failure in *health outcome*.

Hypothesis H4d held that failure in a component of service will result in anger in the consumer. Both the stepdown analyses (see Table 14) and the subsequently conducted separate ANOVAs (see Table 16) appear to support this hypothesis. However, the stepdown

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115 This marginal mean was adjusted for the five covariates. It and other marginal means subsequently reported for the separate ANOVAs are slightly different from their counterparts reported in conjunction with the stepdown analyses performed earlier.

Table 16

Separate ANOVA Tests of the Effects of Displayed Categorical Emotion, Health Outcome, and their Interaction on Categorical Intensity Ratings of Felt Emotions

IV	DV	Univariate F	p	df
DCE	Happiness[a]*	5.05	.027	1/97
	Sadness**	12.76	.001	1/97
	Fear	1.48	.226	1/97
	Anger	2.01	.159	1/97
	Disgust	3.72	.057	1/97
	Contempt	.39	.533	1/97
HO	Happiness*	4.58	.035	1/97
	Sadness	1.25	.266	1/97
	Fear	.82	.367	1/97
	Anger*	5.31	.023	1/97
	Disgust	1.30	.257	1/97
	Contempt	.65	.423	1/97
DCE x HO	Happiness	.76	.385	1/97
	Sadness	.19	.664	1/97
	Fear	1.62	.207	1/97
	Anger	.12	.731	1/97
	Disgust	2.56	.113	1/97
	Contempt	.96	.331	1/97

[a] In each ANOVA model, one DV was entered and the five remaining categories of felt emotions were considered as covariates.

** $p < .01$.

* $p < .05$.

Table 17

Correlations Between Predicted Dependent Variable and Covariates

DV \ Covariates	Happ.	Sadn.	Fear	Anger	Disg.	Cont.
Happiness	....	-.679	.173	.144	.127	.173
Sadness	-.490	....	.822	.563	.540	.107
Fear	-.321	.879	....	.602	.618	.379
Anger	-.291	.603	.603	....	.842	.392
Disgust	-.217	.596	.637	.753	....	.368
Contempt	.417	.174	.574	.593	.540	....

analyses point to anger occurring after failure in either component of service whereas the separate analysis of variance suggest that anger is significantly more intense following failure in *health outcome* only. To address this hypothesis further, we performed another 2 x 2 ANOVA. Mean ratings on the three items of the *controllability* dimension of Russell's (1982) attribution scale directed at assessing the provider's emotional displays and the single item assessing the *controllability* of health outcome were included as two additional covariates. Prior to including Russell's (1982) attribution dimension into the analysis of variance, a principal components factor analysis was performed. The analysis effectively recaptured the three dimensions underlying the scale. This solution explained 73.9% of the variance in the data. Cronbach's coefficient alpha estimate for the *controllability* dimension was $\alpha = .814$. Factor analysis and reliability estimates appear in Table 18. The results of the analysis of variance appear in Table 19. In accordance with the previous analysis, only *health outcome* carried a significant main effect on *felt anger*. In comparison to subjects in conditions involving a negative health outcome, subjects in conditions with a positive health outcome reported feeling less angry ($\bar{x}$: positive health outcome = 2.94, $\bar{x}$: negative health outcome = 4.37). These marginal means were adjusted for the seven covariates. In sum, after taking into consideration two additional covariates deemed important, H4d again appeared confirmed only with respect to failure in *health outcome*.

10.2.3 Dimensional Assessments and Measure Purification of Service Evaluation Factors

Next, we turned our attention to the dimensional structure and discriminant validity of service evaluation factors. In the event that more than one underlying factor was suggested by exploratory factor analysis (EFA), a confirmatory factor analysis (CFA) was performed. Unlike EFA, CFA allows the researcher to constrain a number of parameters based on prior knowledge of the phenomenon under study (Byrne, 1998). Because they tend to incorporate known information, confirmatory models tend to be superior to their exploratory counterparts which tend to be data driven (Little, Lindberger, & Nesselroade, 1999). CFA also permits more formal assessments of unidimensionality (see Gerbing & Anderson, 1988). Unidimensional construct measurement is a desired attribute of measurement models and

Table 18

Reliability and Exploratory Factor Analysis Results for Russell's (1982) Attribution Items

Variable	Factor 1	Factor 2	Factor 3
Locus - Internal/External (α = .773)			
Reflects an aspect of himself/of the situation	.166	- .102	**.814**
Are inside/outside of him	.108	.008	**.785**
Is something about him/others	-.201	- .085	**.871**
Stability (α = .854)			
Permanent/Temporary	**.878**	.021	.007
Stable/Variable over time	**.856**	.056	.042
Unchanging/Changeable	**.876**	-.015	-.018
Controllability (α = .814)			
Controllable/Uncontrollable by him	.039	**.892**	.055
Intended/Unintended by him	.019	**.843**	-.093
He is responsible/not responsible	-.010	**.813**	.045

Factor Correlation Matrix:

	Factor 1	Factor 2	Factor 3
Factor 1	1.00		
Factor 2	.17	1.00	
Factor 3	.23	.11	1.00

Table 19

Displayed Categorical Emotion and Health Outcome Effects on Felt Anger With Seven Covariates

Source	df	Sum of Squares	MS	F	p
Between Subjects (Total)	104	1182.06	11.37		
Model	10	505.37	50.54	7.02	0.000
Within Cells (Error)	94	676.69	7.20		
Displayed Emotion Category (DCE)	1	13.03	13.03	1.81	0.182
Health Outcome (HO)	1	43.08	43.08	5.98	0.016
DCE x HO	1	1.00	1.00	0.14	0.710
Regression	7	347.23	49.60	6.86	0.000

R-Squared = .428
Adjusted R-Squared = .367

items which tend to load on more than one factor should be avoided (Baumgartner & Homburg, 1996; Hattie, 1985). In the context of CFA, the tendency of an item to load on more than one factor can be assessed with modification indices (see Bollen, 1989). Definitions of reliability in CFA diverge from their traditional forms. Typically, the square of the standardized loading (λ_i^2) of each item on its intended factor is taken as an indicator of reliability (cf. Bagozzi, 1994b; Bollen, 1989).

An initially specified CFA model is sometimes respecified for various reasons which can include one or a combination of the following: (a) poor overall goodness of fit (Bollen, 1989; Tanaka, 1993); (b) identification problems (Anderson & Gerbing, 1988; Bentler & Chou, 1987; Bollen, 1989; Hayduk, 1987; Wothke, 1993); (c) negative error variances or improper solutions (Gerbing & Anderson, 1987); (d) nonconvergence (Anderson & Gerbing, 1988; Bollen, 1989), (e) non-significant or low loadings for particular indicators (Anderson, 1987); (f) low item reliabilities and/or high error terms (Bearden, Netemeyer, & Teel, 1989; Netemeyer et al., 1995; Kohli, Jaworski, & Kumar, 1993); (g) lack of fit of particular indicators suggested by large normalized residuals (Anderson, 1987; Bollen, 1989); and/or (h) the apparent need for items to load on more than one factor as suggested by modification indices (Gerbing & Anderson, 1988; Kohli et al., 1993). Respecification in the context of measure purification has usually involved the removal of poor items (e.g., Kim & Lee, 1997; Kohli et al., 1993; Netemeyer et al., 1995; Shimp & Sharma, 1987; Zaichkowsky, 1985).

Reliability and Empathy Dimensions of SERVPERF. A preliminary principal components exploratory factor analysis with oblique rotation was performed on the performance-only component of SERVQUAL referred to as SERVPERF (see Cronin & Taylor, 1994). This solution is reported in Table 20. Loadings equal to or greater than .4 appear in bold. Although SPSS-X freely extracted five factors, the solution did not effectively mimic that reported in Parasuranam et al. (1988, 1991). Rather, it reflected the difficulties in recapturing the proposed five-dimensional structure encountered in many studies (for a review, see Asubonteng et al., 1996). Nevertheless, the solution appeared to have somewhat recaptured two dimensions of interest: *empathy* and *reliability*. In Table 20, the *empathy* dimension is conceptually reflected by items 18 to 22 inclusively (see

Table 20

Exploratory Factor Analysis of SERVPERF

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
01. Up-to-date equipment.[a]	.010	-.045	**.807**	-.131	.108
02. Facilities pleasant and appealing.	.163	-.047	**.683**	-.061	-.061
03. Physician well dressed and neat.	-.036	-.035	**.832**	.119	-.075
04. Facilities in keeping with services provided.	-.034	-.061	**.777**	.04	.025
05. Promises are kept.	.316	-.143	.114	.197	**.657**
06. Physician sympathetic and reassuring.	**.784**	.1	-.036	-.083	.143
07. Physician is dependable.	**.655**	.032	.058	-.012	.24
08. Services provided at time promised.	.28	.085	.187	.311	**.543**
09. Accurate records kept.	-.012	-.009	-.043	-.062	**.847**
10. Physician does not tell when services will be performed. (R)[b]	-.009	.104	-.054	**.791**	.153
11. Patient does not receive prompt service. (R)	-.002	**.567**	.098	**.526**	-.179
12. Not always willing to help. (R)	.139	**.735**	.085	.159	-.195
13. Too busy to respond to patient requests promptly. (R)	.054	**.620**	-.281	-.031	.062
14. A patient can trust this physician.	**.615**	.282	.259	.062	-.034
15. Patient can feel safe in transactions with physician.	**.592**	.148	.245	.088	.105
16. Physician is polite.	.383	.307	.165	-.376	.159
17. Physician gets adequate support from clinic.	-.031	.255	**.477**	-.255	.304
18. Physician does not give individual attention. (R)	-.089	**.740**	.049	.09	-.009
19. Physician does not give personal attention. (R)	.183	**.664**	-.011	.114	.102
20. Physician does not know patient's needs. (R)	.241	**.761**	.026	-.184	-.131
21. Physician does not have patient's best interest art heart. (R)	.118	**.659**	-.072	.084	.161
22. Physician does not have convenient operating hours. (R)	**-.547**	**.692**	.084	-.122	.258

Table 20 Cont'd

Factor Correlation Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	1.000				
Factor 2	.216	1.000			
Factor 3	.306	.108	1.000		
Factor 4	.087	.101	- .029	1.000	
Factor 5	.253	.208	.240	- .070	1.000

Final Statistics:

	Eigenvalue	Cum. % of Var.
Factor 1	6.63	30.1
Factor 2	3.23	44.8
Factor 3	1.61	52.1
Factor 4	1.37	58.3
Factor 5	1.12	63.4

[a] Items are paraphrased.
[b] Reverse coded items are indicated by (R).

Parasuranam et al., 1988, 1990). The analysis indicated that items 18 to 21 formed a distinct factor with fairly high factor loadings (all loadings > .65) and acceptable levels of reliability (Cronbach's α = .808). The *reliability* dimension is conceptually reflected by items 5 to 9 inclusively (see Parasuranam et al., 1988, 1990). In the analysis, these items were related to two different factors. However, three of the five items (5, 8, and 9) did form a distinct factor (all loadings > .5) with an acceptable level of internal consistency (Cronbach's α = .751).

A first-order CFA was subsequently performed on the two dimensional composites retained from the EFA. Results are reported in Table 21. LISREL VIII (Jöreskog & Sörbom, 1993) estimation of this model yielded a χ^2 (chi-square) of 10.58 with 13 degrees of freedom (p = .65). This suggested an acceptable level of overall model fit. However, the χ^2 test is sensitive to sample size variations and latent variable dependence (see Bagozzi & Yi, 1988; Bentler, 1990; Bollen, 1989; Hu & Bentler, 1995). Consequently, reliance on a battery of other indices of fit which include the Normed Fit Index (NFI) and the Comparative Fit Index (CFI) has become customary because they are known to be less sensitive to sample size variations (see Bentler, 1990, 1992; Bentler & Bonett, 1980; Hu & Bentler, 1995, 1999; Rigdon, 1996). Values equal to or greater than .9 on these indices are generally taken as indicative of a meaningful model (cf. Bagozzi & Yi, 1988; Bentler, 1990, 1992; Hu & Bentler, 1995, 1999). If in some situations both the χ^2 and these alternate indexes of fit are deemed untrustworthy, Hu and Bentler (1995) argue that a more traditional examination of residuals in the metric of the correlation matrix may be the most effective manner of assessing fit. For the problem at hand, the NFI and CFI equalled .96 and 1.00, respectively. Accordingly, the proposed CFA model exhibited acceptable to high levels of overall fit over a variety of indices and thus seemed to adequately represent the variable structure underlying the data. All factor loadings (λs) were significant (t > 2.00) and greater than .5[116] and no

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116 A variety of sequences and cutoff values for item deletion are proposed throughout the literature on measure purification in marketing. For instance, Bienstock, Mentzer,and Bird (1997) eliminated items "which loaded with equal magnitude on more than one dimension" (p. 36) This is quite consistent with Churchill's (1979) prescriptions. Moreover, many studies have tended to eliminate one or more items which failed to attain a specific magnitude in terms of factor loadings on their intended dimensions. Although .5 appears often as a cut-off value for factor loadings (e.g., Noerager, 1979; Zaichlowsky, 1985), cutoff values have tended to vary from one study to another. For instance, Netemeyer, Burton, and Lichtenstein (1995) discarded items with loadings below the more stringent

items exhibited excessive and frequent standardized residuals with other indicators. Consequently, no items were deleted from either composite (see Anderson, 1987; Bollen, 1989; Kim & Lee, 1997; Kohli et al., 1993; Netemeyer et al., 1995).

The SERVQUAL dimension *empathy* was taken to reflect *functional service quality* whereas *reliability* was held as an indicator of *technical service quality* (see Mittall & Lassar, 1998). An indication of discriminant validity rested in the magnitude of the estimated correlation between both dimensions ($\phi_{2,1}=0.38$). A more formal assessment of discriminant validity involved testing whether this correlation coefficient was significantly different from unity (+1 or -1) (Bagozzi, Yi, & Phillips, 1991). The 95% confidence interval subsequently computed for this estimate did not include unity [.184,.576]. Hence, the *empathy* and *reliability* dimensions were deemed statistically discriminant.

Relational-Interactional Quality. Next, the thirteen items of the proposed measure of relational-interactional quality were submitted to a preliminary principal components exploratory factor analysis with oblique rotation. Two factors were extracted which in turn explained 73% of the total variance in the data. Factor One accounted for most of this variance (63.8%). The solution is reported in Table 22. The item purification sequence once again adhered to suggestions in Churchill (1979) and Gerbing and Anderson (1988). Item 8 had a relatively higher loading on Factor Two but its loading on Factor One was nevertheless substantial (.366) in comparison to other items loading highly on Factor Two. Item 8 was consequently deleted. The remaining items effectively loaded on their intended dimensions. The item content of Factor One reflected the *conveyance* of various attributes via emotional labor whereas the items of Factor Two suggested a *responsiveness* to patients. Hence, the two proposed dimensions of relational-interactional quality were recaptured empirically. Cronbach's coefficient alpha estimate was α = .943 for the seven-item composite assessing *conveyance* and α = .907 for the five-item composite measuring *responsiveness*, respectively.

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cut-off level of .7 (see also Shimp & Sharma, 1987). Alternatively, Netemeyer et al. (1995) used .6 as a cutoff value for factor loadings in a preliminary purification study and then used .7 in a subsequent study of the same measure.

Table 21

Confirmatory Factor Analysis of Empathy and Reliability

Items	Param.[a]	Estimate	t-Value	S.E.
Reliability (ξ_1):				
When this physician promises to do something by a certain time, he does so.[b]	$\lambda_{1,1}$	.74	7.59	.10
This physician provides his services at the time he promises to do so.	$\lambda_{2,1}$	.79	8.08	.10
This physician keeps his records accurately.	$\lambda_{3,1}$	.60	6.06	.10
Empathy (ξ_2):				
This physician does not give a patient individual attention. (R)[c]	$\lambda_{4,2}$	.58	6.21	.09
This physician does not give a patient personal attention. (R)	$\lambda_{5,2}$	.85	9.94	.09
This physician does not know what a patient's needs are. (R)	$\lambda_{6,2}$	.74	8.28	.09
This physician does not have his patient's best interests at heart. (R)	$\lambda_{7,2}$	.70	7.73	.09
Correlation of Factors:				
	$\Phi_{2,1}$	.38	3.62	.10

Goodness of Fit Statistics:

χ^2 (p-value)	10.58 (0.65)
df	13
NFI	.96
CFI	1.00
IFI	1.01
AGFI	.94
RMR	.043
RMSEA	0.0

[a] All parameter estimates are standardized

[b] Items are paraphrased.

[c] Reverse coded items are indicated by (R).

Table 22

Exploratory Factor Analysis Results of Relational/Interactional Quality

Variable	Factor 1	Factor 2
01. Physician displays compassion.[a]	**.909**	-.062
02. Physician displays caring.	**.905**	-.022
03. Physician displays concern.	**.774**	.096
04. Physician displays appropriate interest.	**.691**	.22
05. Physician displays empathy.	**.816**	.085
06. Physician displays support.	**.9**	-.001
07. Physician displays understanding.	**.896**	-.090
08. Physician elicits patient's perspective.	.366	**.467**
09. Physician listens actively to patient.	-.021	**.836**
10. Physician tries to understand experiences	.005	**.891**
11. Physician tries to reflect patient's feelings.	.000	**.845**
12. Physician tries to legitimize patient's feelings.	-.024	**.875**
13. Physician tries to establish a partnership.	.049	**.800**

Factor Correlation Matrix:

	Factor 1	Factor 2
Factor 1	1.000	
Factor 2	.708	1.000

Final Statistics:

	Eigenvalue	Cum. % of Var.
Factor 1	8.29	63.8
Factor 2	1.20	73.0

[a] Items are paraphrased.

CFA was subsequently performed on the two-dimensional twelve-item structure. Convergence problems emerged (see Anderson & Gerbing, 1988; Bollen, 1989) in that the number iterations exceeded 75 and poor model fit was apparent ($\chi^2 = 352.31$ with 53 degrees of freedom ($p = 0.0$); NFI = 0.72; CFI = 0.75). Respecifications involved the deletion of two items which exhibited frequent standardized residuals with other indicators (see Anderson, 1987; Bollen, 1989; Hu & Bentler, 1995). Results of the retained CFA model are reported in Table 23. After final respecification, the overall model fit exhibited a dramatic increase over that of the initial CFA model and was now deemed acceptable (NFI = .92; CFI = .96). In addition, all parameter estimates were significant ($t > 2.00$) and factor loadings (λs) were all above .75. The estimated correlation between factors was fairly high ($\phi_{2,1} = 0.78$) suggesting the possibility that both composites may in reality be assessing the same construct. The 95% confidence interval subsequently computed for this estimate did not include unity [.682, .878]. Hence, this indicated that the two dimensions were statistically discriminant (Bagozzi et al., 1991).

Satisfaction. The five items designed to assess satisfaction were submitted to principal components exploratory factor analysis. A single factor emerged which accounted for 61.9% of the variance in the data (Eigenvalue 1 = 3.096; Eigenvalue 2 = 0.888). One item exhibited a relatively lower loading (.436) in comparison to the other four items whose loadings ranged from .791 to .90. The relatively poorer item was the categorical measure scaled from 0 *(Nothing at All)* to 10 *(Maximal)*. This item was subsequently deleted and Cronbach's coefficient alpha for the purified composite was estimated at $\alpha = .888$. The relatively poorer level of association between the deleted item and the remaining four was perhaps attributable to a method artefact in that the deleted item was scaled differently from the retained items.

Behavioral Intentions. The four items designed to assess behavioral intentions were also factor analyzed with principal components. A single dominant factor emerged which accounted for 85% of the total variance in the data (Eigenvalue 1 = 3.4; Eigenvalue 2 = 0.403). Factor loadings ranged from .826 to .966. Consequently, no items were deleted from the measure. Cronbach's coefficient alpha for the four item composite was estimated

Table 23

Confirmatory Factor Analysis of Relational/Interactional Quality

Items	Param.[a]	Estimate	t-Value	S.E.
Conveyance (ξ_1):				
Physician displays compassion.[b]	$\lambda_{1.1}$	.84	10.68	.08
Physician displays caring.	$\lambda_{2.1}$	.88	11.48	.08
Physician displays appropriate interest.	$\lambda_{3.1}$	.81	10.18	.08
Physician displays empathy.	$\lambda_{4.1}$	.86	11.07	.08
Physician displays understanding.	$\lambda_{5.1}$	.76	9.26	.08
Responsiveness (ξ_2):				
Physician listens actively to patient.	$\lambda_{6.2}$	.78	9.48	.08
Physician tries to understand experiences.	$\lambda_{7.2}$	.87	11.33	.08
Physician tries to reflect patient's feelings.	$\lambda_{8.2}$	.80	9.98	.08
Physician tries to legitimize patient's feelings.	$\lambda_{9.2}$	.83	10.55	.08
Physician tries to establish a partnership.	$\lambda_{10.2}$	.79	9.79	.08
Correlation of Factors:				
	$\Phi_{2.1}$	.78	17.03	.05

Goodness of Fit Statistics:

χ^2 (p-value)	70.56 (0.00023)
df	34
NFI	.92
CFI	.96
IFI	.96
AGFI	.83
RMR	.037
RMSEA	.098

[a] All parameter estimates are standardized.

[b] Items are paraphrased.

at $\alpha = .9375$.

10.2.4 Further Purification of Composites and Indications of Discriminant Validity

Service quality and satisfaction generally emerge as correlated constructs in empirical studies (e.g., Bitner, 1990; Cronin & Taylor, 1992; Oliver, 1996). However, the treatment of these constructs suggests that they are often confounded at conceptual and operational levels (Bitner & Hubbert, 1994). Some have argued that service quality and satisfaction are almost interchangeable evaluations (e.g., Kleinsorge & Koenig, 1991; Rust & Zahorik, 1993). Other have gone so far as to suggest that SERVQUAL is a better measure of satisfaction than quality (see Taylor & Cronin, 1994). Still others have suggested that service quality represents a cognitive judgment whereas satisfaction is a more affective evaluation (Dabholkar, 1993; Iacobucci et al., 1996; Oliver, 1981, 1989, 1993a, 1997; Rust & Oliver, 1994;Westbrook & Oliver, 1991). In light of these issues, a major concern in this research was whether the four facets of service quality were discriminant of satisfaction. Furthermore, our proposed four-factor model of service quality combines two SERVQUAL dimensions and two additional dimensions generated to specifically assess the relational behavior of the service provider with an emphasis on emotional labor. Because three of the four factors (empathy, conveyance, and responsiveness) apparently assess the higher-order construct of functional or process-related aspect of service quality (see Grönroos, 1990; Lehtinen & Lehtinen, 1982), an examination of the interrelationships among these factors was also deemed necessary. If one of the three functional quality factors were to emerge as non-discriminant (indistinct) with respect to another of these factors, it would perhaps be better to eliminate this dimension entirely for the sake of parsimony (see Byrne, 1998; Hayduk, 1996; Hu & Bentler, 1995).

The CFA model depicted in Figure 23 was estimated to address discriminant validity issues among the four quality components. In effect, this model combined both previously estimated CFA models (see Tables 21 and 23). The results appear in Table 24. Estimation suggested a poor level of overall model fit ($\chi^2 = 182.94$ with 113 degrees of freedom ($p = 0.000$); NFI = .86; CFI = .94) and a number of substantial standardized residuals between indicators. Item deletions were undertaken.

Figure 23

First-Order Confirmatory Factor Analysis Model of Quality Components

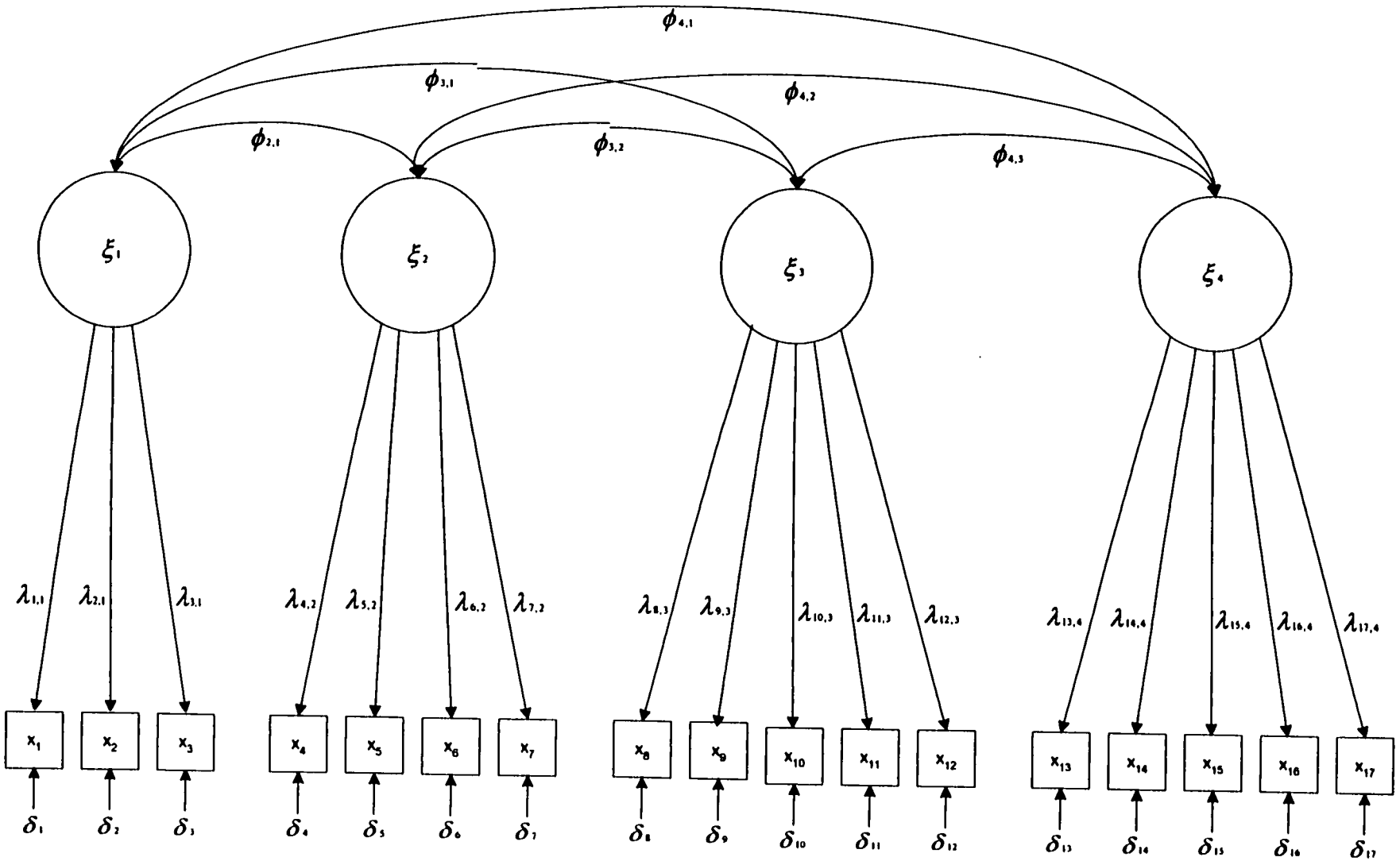


Figure 23 Cont'd

Notes:

Latent Variables (ksi's):
ξ_1 = *Reliability* (SERVQUAL)
ξ_2 = *Empathy* (SERVQUAL)
ξ_3 = *Conveyance*
ξ_4 = *Responsiveness*

Parameters to be estimated:
λ's = Factor loadings (lambda's).
δ's = Error variances (theta delta's).
ϕ's = Correlations between latent variables (phi's).

Indicators:
x_1: When this physician promises to do something by a certain time, he does so.
x_2: Physician provides his services at the time he promises to do so[a].
x_3: Physician keeps his records accurately.

x_4: Physician does not give a patient individual attention.
x_5: Physician does not give a patient personal attention.
x_6: Physician does not know what a patient's needs are.
x_7: Physician does not have his patient's best interests at heart.

x_8: Physician displays compassion.
x_9: Physician displays caring.
x_{10}: Physician displays appropriate interest.
x_{11}: Physician displays empathy.
x_{12}: Physician displays understanding.

x_{13}: Physician listens actively to patient.
x_{14}: Physician tries to understand experiences.
x_{15}: Physician tries to reflect patient's feelings.
x_{16}: Physician tries to legitimize patient's feelings.
x_{17}: Physician tries to establish a partnership.

---

[a] This and following items are paraphrased.

Table 24

Confirmatory Factor Analysis of Four Service Quality Factors

Items	Param.[a]	Estimate	t-Value	S.E.
Reliability (ξ_1):				
When this physician promises to do something by a certain time, he does so.[b]	$\lambda_{1,1}$	.74	7.85	.09
This physician provides his services at the time he promises to do so.	$\lambda_{2,1}$	.77	8.20	.09
This physician keeps his records accurately.	$\lambda_{3,1}$	.62	6.45	.10
Empathy (ξ_2):				
This physician does not give a patient individual attention. (R)[c]	$\lambda_{4,2}$	.58	6.22	.09
This physician does not give a patient personal attention. (R)	$\lambda_{5,2}$	.84	10.02	.08
This physician does not know what a patient's needs are. (R)	$\lambda_{6,2}$	.75	8.56	.09
This physician does not have his patient's best interests at heart. (R)	$\lambda_{7,2}$	.71	8.00	.09
Conveyance (ξ_3):				
Physician displays compassion.	$\lambda_{8,3}$	.83	10.60	.08
Physician displays caring.	$\lambda_{9,3}$	.86	11.12	.08
Physician displays appropriate interest.	$\lambda_{10,3}$	.82	10.43	.08
Physician displays empathy.	$\lambda_{11,3}$	.87	11.42	.08
Physician displays understanding.	$\lambda_{12,3}$	.86	11.12	.08
Responsiveness (ξ_4):				
Physician listens actively to patient.	$\lambda_{13,4}$	.77	9.39	.08
Physician tries to understand experiences.	$\lambda_{14,4}$	.87	11.27	.08
Physician tries to reflect patient's feelings.	$\lambda_{15,4}$	.80	10.00	.08
Physician tries to legitimize patient's feelings.	$\lambda_{16,4}$	.83	10.59	.08
Physician tries to establish a partnership.	$\lambda_{17,4}$	.80	9.89	.08

Table 24 Cont'd

	Param.[a]	Estimate	t-Value	S.E.
Correlation of Factors:				
	$\Phi_{2,1}$	.37	3.53	.11
	$\Phi_{3,1}$	.53	6.14	.09
	$\Phi_{4,1}$	.45	4.71	.09
	$\Phi_{3,2}$	.67	10.27	.07
	$\Phi_{4,2}$	.58	7.50	.08
	$\Phi_{4,3}$	.79	17.51	.04

Goodness of Fit Statistics:

χ^2 (p-value)	182.94 (0.000)
df	113
NFI	.86
CFI	.94
IFI	.94
AGFI	.79
RMR	.048
RMSEA	.075

[a] All parameter estimates are standardized.
[b] Items are paraphrased.
[c] Reverse coded items are indicated by (R).

Each respecification rested on deleting the item most frequently associated to a high standardized residual. Respecification and reestimation continued until acceptable levels of fit were obtained. The model which was retained contained three indicators per latent variable. Overall model fit appeared adequate ($\chi^2 = 69.90$ with 48 degrees of freedom ($p = 0.021$); NFI = 0.91; CFI = 0.97) and all parameter estimates were significant ($t > 2.00$). These and other estimates are reported in Table 25. Although model fit could have been increased even more significantly with the removal of additional indicators, adequate coverage of the domain[117] of each construct was a primary consideration which, in turn, served as a deterrent from further item deletions. In other words, removal of an additional item from any dimension would have rendered each composite less effective in tapping the domain of its intended dimension. In addition, retention of less than three indicators per latent variable may lead to identification problems (see Bollen, 1989).

The four-item *satisfaction* factor was specified as an additional dimension to the retained four-factor CFA model of quality components. The resulting five-factor model is depicted in Figure 24. Estimation of this model yielded acceptable levels of overall fit ($\chi^2 = 108.99$ with 94 degrees of freedom ($p = 0.14$); NFI = 0.90; CFI = 0.98) and no substantial

---

[117] One potential problem with traditional measure purification procedures rests in their reliance on internal consistency criteria for the deletion of items. These procedures suggest the elimination of relatively unreliable items; and this may occur at the expense of validity (for related and additional problems in the context of CFA, see Bollen & Lennox, 1991). Specifically, items shown to be unreliable in terms of lower intercorrelations can in certain conditions still be valid. Little et al. (1999) suggest that this may occur when indicators display sufficient variability on the construct and are "spread out across the construct domain sufficiently to capture the centroid" (or true score) (p. 207). Accordingly, some psychometricians have suggested that correlations (homogeneity) between indicators should not be too high (e.g., Cattell, 1965). High intercorrelations imply redundancy and this may hamper a measure's ability to efficiently sample the breadth of broadly defined variables (see Epstein, 1983b). In a like vein, seemingly unreliable indicators tend to adversely affect model fit in the context of structural equation modeling (Bollen, 1989). Hence, researchers are often confronted with a trade-off between a decrease in the number of indicators and an increase in model fit (exceptions do occur in the case of highly parameterized models where an artificially high level of goodness of fit may suggest that additional item deletions are unnecessary; see Hu & Bentler, 1995). In purifying each composite of a CFA model not only with respect to reliability (λ^2) but also by taking account of items detrimental to overall model fit suggested for instance by frequent and high standardized residuals with other items in the model can also impede a multiple item measure in effectively sampling the domain of a construct. In the case of the *reliability* factor in Table 25, one item displays a loading of .62 which is acceptable but somewhat below those of the other items. Its deletion was entertained but the marginal benefit of omitting this item in terms of increased internal consistency and improvement in model fit did not outweigh the potential cost to validity.

Table 25

Confirmatory Factor Analysis of Four Service Quality Factors Following Respecification

Items	Param.[a]	Estimate	t-Value	S.E.
Reliability (ξ_1):				
When this physician promises to do something by a certain time, he does so.[b]	$\lambda_{1,1}$	.74	7.83	.09
This physician provides his services at the time he promises to do so.	$\lambda_{2,1}$	.78	8.35	.09
This physician keeps his records accurately.	$\lambda_{3,1}$	.62	6.44	.10
Empathy (ξ_2):				
This physician does not give a patient personal attention. (R)[c]	$\lambda_{4,2}$	.82	9.53	.09
This physician does not know what a patient's needs are. (R)	$\lambda_{5,2}$	.75	8.48	.09
This physician does not have his patient's best interests at heart. (R)	$\lambda_{6,2}$	.72	8.11	.09
Conveyance (ξ_3):				
Physician displays caring.	$\lambda_{7,3}$	.84	10.67	.08
Physician displays appropriate interest.	$\lambda_{8,3}$	.84	10.66	.08
Physician displays empathy.	$\lambda_{9,3}$	.85	10.73	.08
Responsiveness (ξ_4):				
Physician tries to understand experiences.	$\lambda_{10,4}$	.84	10.43	.08
Physician tries to legitimize patient's feelings.	$\lambda_{11,4}$	.84	10.45	.08
Physician tries to establish a partnership.	$\lambda_{12,4}$	.82	10.19	.08
Correlations of Factors:				
	$\Phi_{2,1}$	.38	3.55	.11
	$\Phi_{3,1}$	.59	6.97	.08
	$\Phi_{4,1}$	.43	4.41	.10
	$\Phi_{3,2}$	.69	10.17	.07
	$\Phi_{4,2}$	.62	7.98	.08
	$\Phi_{4,3}$	.80	16.01	.05

Table 25 Cont'd

Goodness of Fit Statistics:	
χ^2 (p-value)	69.90 (0.021)
df	48
NFI	.91
CFI	.97
IFI	.97
AGFI	.85
RMR	.045
RMSEA	.064

[a] All parameter estimates are standardized.
[b] Items are paraphrased.
[c] Reverse coded items are indicated by (R).

Figure 24

First-Order Confirmatory Factor Analysis Model of Quality Components and Satisfaction

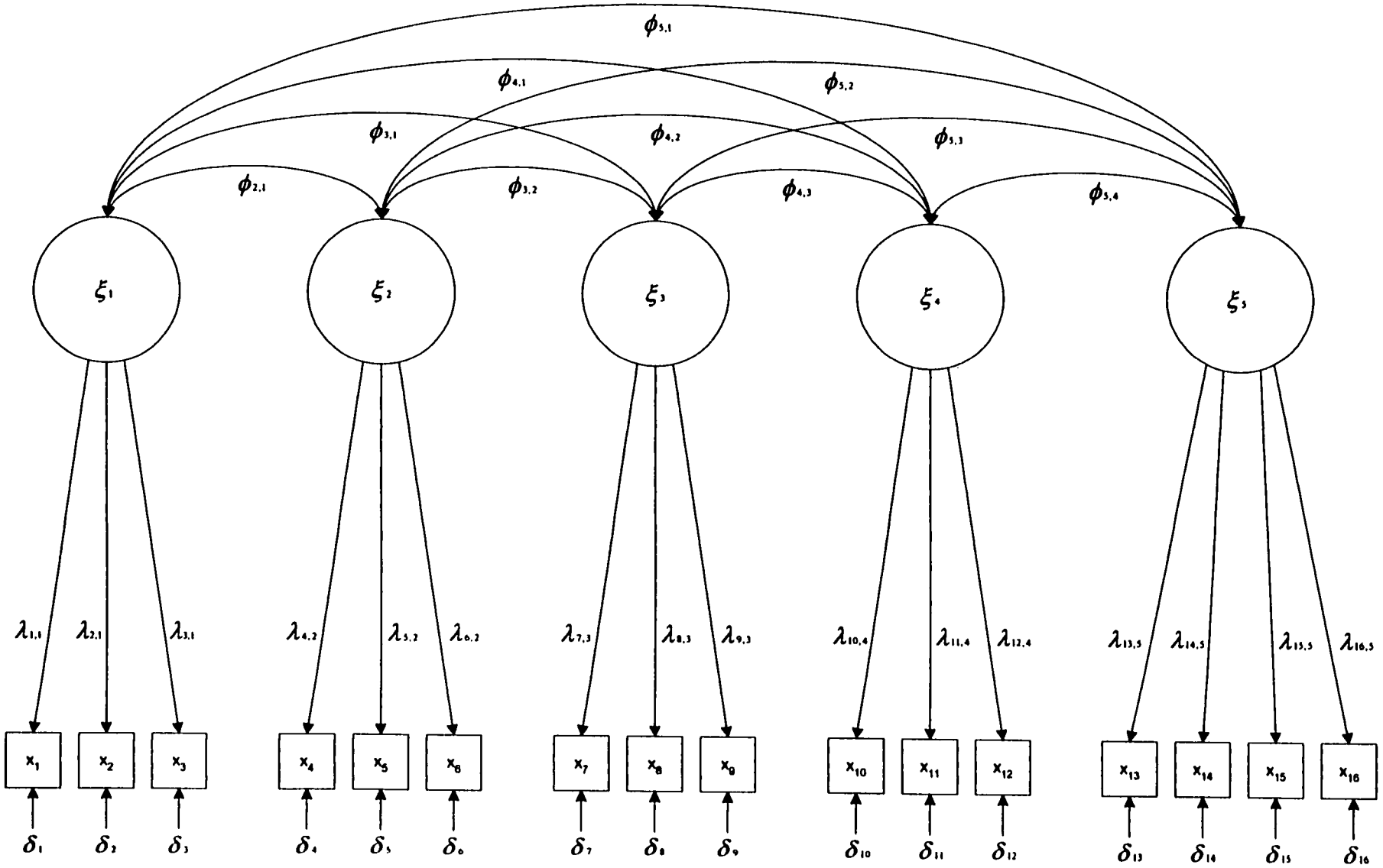


Figure 24 Cont'd

Notes:

Latent Variables (ksi's):
ξ_1 = *Reliability* (SERVQUAL)
ξ_2 = *Empathy* (SERVQUAL)
ξ_3 = *Conveyance*
ξ_4 = *Responsiveness*
ξ_5 = *Satisfaction*

Parameters to be estimated:
λ's = Factor loadings (lambda's).
δ's = Error variances (theta delta's).
ϕ's = Correlations between latent variables (phi's).

Indicators:
x_1: When this physician promises to do something by a certain time, he does so.
x_2: Physician provides his services at the time he promises to do so[a].
x_3: Physician keeps his records accurately.

x_4: Physician does not give a patient personal attention.
x_5: Physician does not know what a patient's needs are.
x_6: Physician does not have his patient's best interests at heart.

x_7: Physician displays caring.
x_8: Physician displays appropriate interest.
x_9: Physician displays empathy.

x_{10}: Physician tries to understand experiences.
x_{11}: Physician tries to legitimize patient's feelings.
x_{12}: Physician tries to establish a partnership.

x_{13}: My feelings towards this physician's services can best be described as ...
x_{14}: My feelings towards how this physician delivered his service to me can best be ...
x_{15}: My feelings towards this physician's proposed diagnosis and treatment can best be ...
x_{16}: My feelings towards the way this physician related to me emotionally was ...

[a] This and following items are paraphrased.

standardized residual emerged. Parameter estimates are reported in Table 26. The pattern of factor loadings of items on their intended quality factors showed very slight variations with respect to the previously estimated four-factor model (see Table 25). The loadings of the four satisfaction items on their intended dimension ranged from .70 to .91 and all were significant ($t > 2.00$). Taken together, these estimates suggested that the measurement of each latent variable was psychometrically sound given a more or less stringent cutoff level of .6 for factor loadings (see Netemeyer et al., 1995).

Finally, we turned our attention to the parameters which represented the intercorrelations between latent variables (ϕ's or phi's). These correlations ranged from .26 to .80 and all were significant ($t > 2.00$). The computed 95% confidence intervals for these estimates are also reported in Table 26. Evidently, none contain unity (-1 or +1). In turn, this suggested that each latent factor was discriminant or that it represented a statistically distinct factor from each of the other four contained in the model. Hence, the four quality components developed here were taken to represent statistically distinct aspects of quality and satisfaction appeared as a statistically distinct factor with respect to service quality components.

10.2.5 Tests of Hypotheses: Provider Emotional Displays and Service Evaluation

Appropriateness of Provider Emotional Displays and Service Evaluation.

To address hypotheses H5a to H5c, we first contemplated running a full factorial MANOVA with three dependent variables: *reliability*, *empathy*, and *satisfaction*. However, service quality and satisfaction are typically highly correlated (Cronin & Taylor, 1992; Oliver, 1996) and this represents an impediment to the procedure (Tabachnick & Fidell, 1996). Instead, we decided to run a separate analysis of variance for each DV with the other two entered as covariates. The three dependent variables consisted in mean scores on the three-item *reliability* composite, the three-item *empathy* composite, and the four-item *satisfaction* composite retained from the previous analysis. Independent variables were *valence of emotional displays* and *health outcome*.

Mittal and Lassar (1998) suggest that the *reliability* dimension of SERVQUAL is closely related to technical service quality whereas *empathy* (along with *assurance* and

Table 26

Confirmatory Factor Analysis of Four Service Quality Factors and Satisfaction

Items	Param.[a]	Estimate	t-Value	S.E.
Reliability (ξ_1):				
When this physician promises to do something by a certain time, he does so.[b]	$\lambda_{1,1}$	.74	7.83	.09
This physician provides his services at the time he promises to do so.	$\lambda_{2,1}$	.78	8.35	.09
This physician keeps his records accurately.	$\lambda_{3,1}$	.62	6.46	.10
Empathy (ξ_2):				
This physician does not give a patient personal attention. (R)[c]	$\lambda_{4,2}$	.81	9.44	.09
This physician does not know what a patient's needs are. (R)	$\lambda_{5,2}$	.75	8.55	.09
This physician does not have his patient's best interests at heart. (R)	$\lambda_{6,2}$	.73	8.16	.09
Conveyance (ξ_3):				
Physician displays caring.	$\lambda_{7,3}$	.84	10.58	.08
Physician displays appropriate interest.	$\lambda_{8,3}$	.86	10.92	.08
Physician displays empathy.	$\lambda_{9,3}$	.84	10.60	.08
Responsiveness (ξ_4):				
Physician tries to understand experiences.	$\lambda_{10,4}$	.84	10.53	.08
Physician tries to legitimize patient's feelings.	$\lambda_{11,4}$	.83	10.34	.08
Physician tries to establish a partnership.	$\lambda_{12,4}$	.82	10.20	.08
Satisfaction (ξ_5):				
My feelings towards this physician's services can best be described as ...	$\lambda_{13,5}$	.87	11.17	.08
My feelings towards how this physician delivered his service to me can best be ...	$\lambda_{14,5}$	.91	12.06	.08
My feelings towards this physician's proposed diagnosis and treatment can best be ...	$\lambda_{15,5}$	.70	8.17	.09
My feelings towards the way this physician related to me emotionally was ...	$\lambda_{16,5}$	.80	9.82	.08

Table 26 Cont'd

	Param.[a]	Estimate	t-Value	S.E.	95% C. I.
Correlations of Factors:					
	$\phi_{2,1}$	.38	3.52	.11	[.1644,.5956]
	$\phi_{3,1}$	.59	7.00	.08	[.4332,.7468]
	$\phi_{4,1}$	.44	4.44	.10	[.2440,.6360]
	$\phi_{5,1}$	.26	2.48	.11	[.0444,.4756]
	$\phi_{3,2}$	.69	10.16	.07	[.5528,.8272]
	$\phi_{4,2}$	.62	7.96	.08	[.4632,.7768]
	$\phi_{5,2}$	.47	5.24	.09	[.2936,.6464]
	$\phi_{4,3}$	.80	16.15	.05	[.7020,.8980]
	$\phi_{5,3}$	.59	8.09	.07	[.4528,.7272]
	$\phi_{5,4}$	.53	6.71	.08	[.3732,.6868]

Goodness of Fit Statistics:

χ^2 (p-value)	108.99 (0.14)
df	94
NFI	.90
CFI	.98
IFI	.99
AGFI	.85
RMR	.045
RMSEA	.038

[a] All parameter estimates are standardized.
[b] Items are paraphrased.
[c] Reverse coded items are indicated by (R).

responsiveness) reflects functional service quality. Hypothesis H5a held that the interaction between the valence of emotional displays and the context in which they were expressed will explain more variance in service quality ratings than the direct influences of either valence or context alone and H5b proposed that this interaction will be significantly related to functional service quality but not to technical service quality. Hypotheses H5a and H5b were confirmed. As shown in Table 27 and Figures 25 and 26, a significant interaction appeared for perceived *empathy* ($F(1,106) = 6.68$, $p < .05$) but not for perceived *reliability* ($F(1,106) = 0.02$, $p > .8$) and no main effects were significant or even approached significance at the .1 level for either DV. Other cell and treatment statistics are shown in Tables 28 and 29. Hypothesis H5c suggested that the interaction between the valence of emotional displays and the context in which they were expressed will explain more variance in felt satisfaction ratings than the direct influences of either valence or context alone. This hypothesis was also confirmed. As shown in Table 27 and Figure 27, none of the main effects emerged as significant for felt *satisfaction* but a fair amount of variance was explained by the significant two-way interaction ($F(1,106) = 5.59$, $p < .05$). Other cell and treatment statistics are shown in Table 30. Correlations between each DV and the two covariates appear in the rows of Table 31. Evidently, these correlations were quite high. In turn, this indicated that the data were not suited for MANOVA.

Hypothesis H5d suggested that appropriate emotional displays will be positively related to functional service quality and satisfaction; and conversely, that inappropriate emotional displays will be negatively related to functional service quality and satisfaction. Two four-group Bonferroni-type comparison tests (LSD test with significance level = .008) of these data were carried out. For the DV perceived *empathy*, results indicated that only two comparisons were significant (points 4 vs. 1 and points 4 vs. 2 in Figure 26). Results for felt *satisfaction* pointed to the same pair of significant comparisons (points 4 vs. 1 and points 4 vs. 2 in Figure 27). Hence, hypothesis H5d was partly confirmed. Specifically, groups exposed to appropriate displays are indicated by points 1 and 2 and groups exposed to inappropriate displays appear as points 3 and 4 in Figures 26 and 27. Significant differences with respect to perceived *empathy* and felt *satisfaction* appeared between condition 4 where

Table 27

Separate ANOVA Tests of the Effects of Valence of Emotional Displays, Health Outcome, and their Interaction on Perceived Reliability, Perceived Empathy, and Felt Satisfaction

IV	DV	Univariate F	p	df
VED	Reliability[a]	1.75	.189	1/106
	Empathy	0.32	.573	1/106
	Satisfaction	0.51	.478	1/106
HO	Reliability	.00	.993	1/106
	Empathy	.70	.404	1/106
	Satisfaction	.19	.663	1/106
VED x HO	Reliability	.02	.877	1/106
	Empathy*	6.68	.011	1/106
	Satisfaction*	5.69	.019	1/106

[a] In each ANOVA model, one DV was entered and the other two considered as covariates.

** $p < .01$.

* $p < .05$.

Figure 25

Effects of Valence of Emotional Displays and Health Outcome on Perceived Reliability

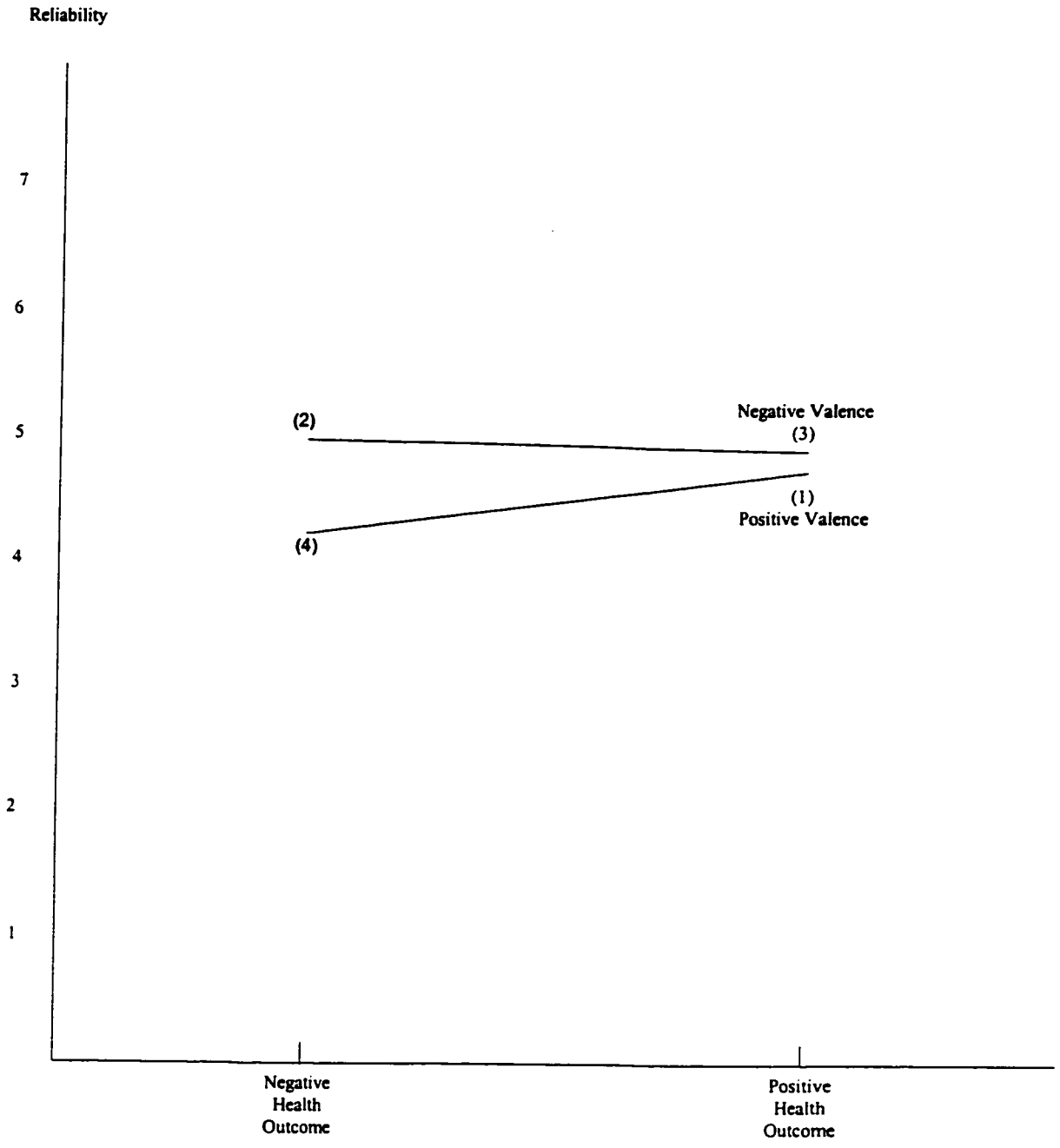


Figure 26

Effects of Valence of Emotional Displays and Health Outcome on Perceived Empathy

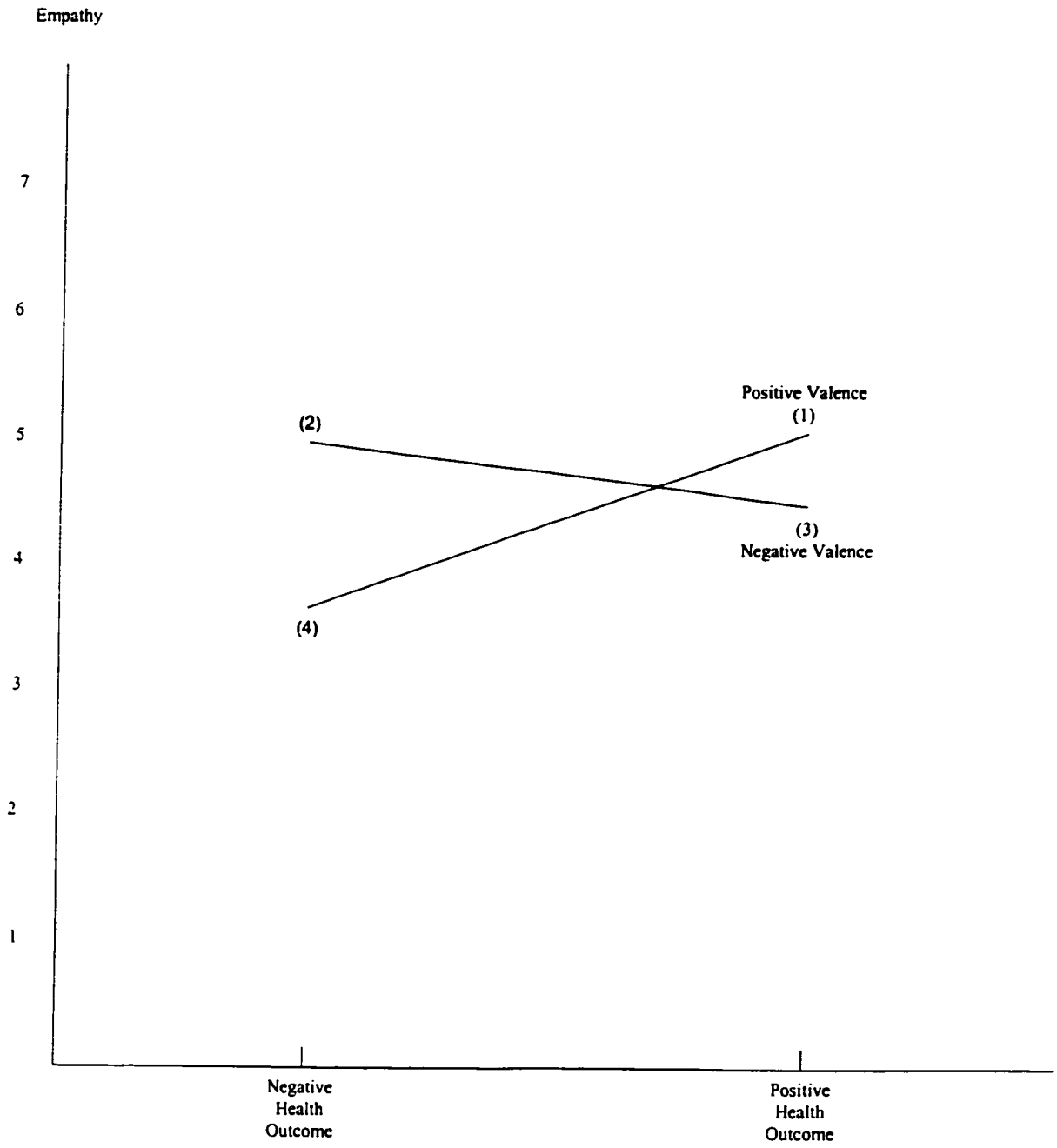


Figure 27

Effects of Valence of Emotional Displays and Health Outcome on Satisfaction

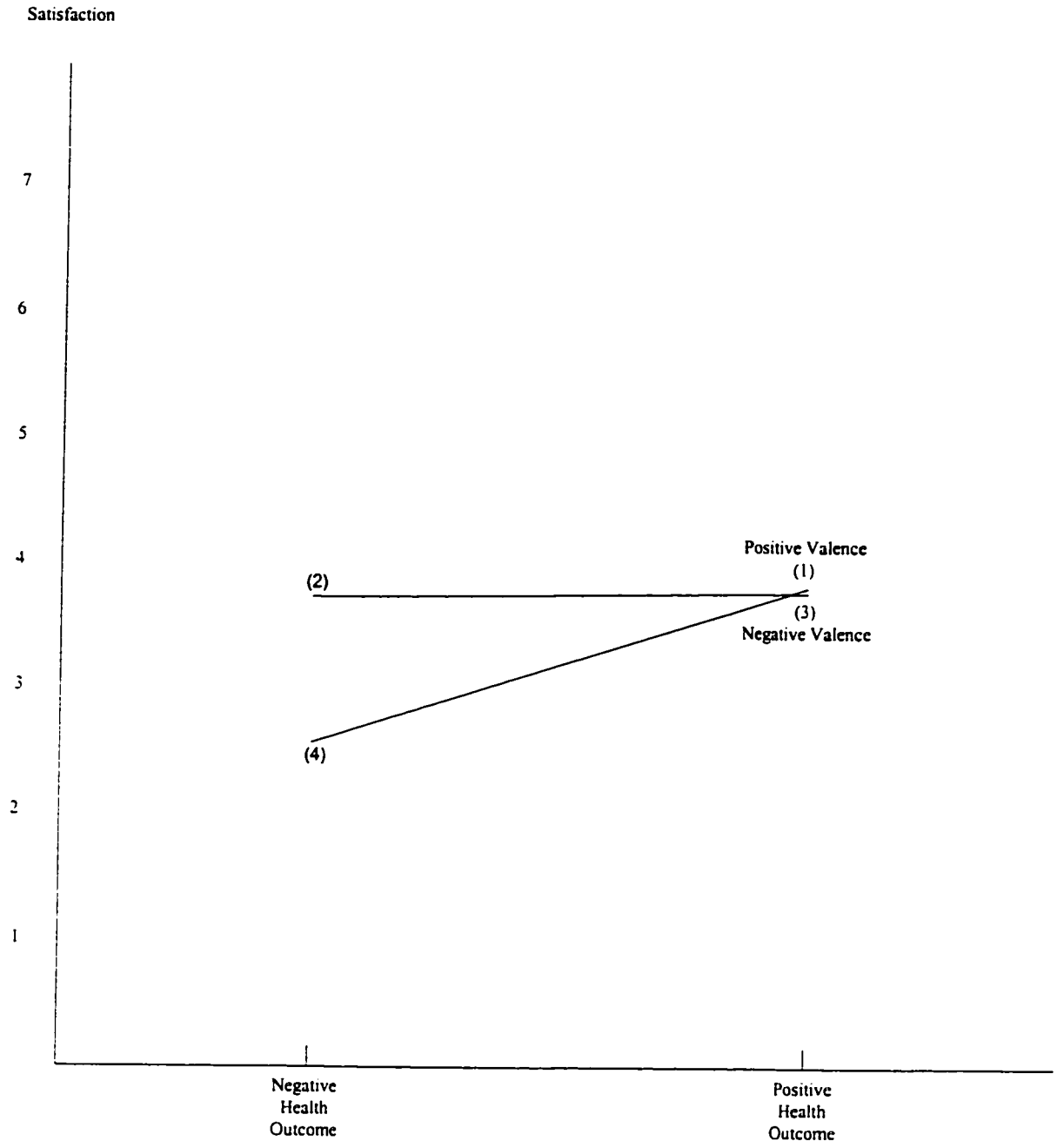


Table 28

Effects on Perceived Reliability Rating: Treatment and Cell Summary Statistics

	VED	HO	N	$\bar{x}$	SD
Overall	.	.	112	4.72	1.31
VED:					
Positive Displays	1	.	46	4.47	1.32
Negative Displays	2	.	66	4.89	1.28
HO:					
No Diabetes	.	1	58	4.77	1.21
Diabetes	.	2	54	4.67	1.42
VED x HO:					
Valence x Health Outcome	1	1	22	4.73	1.14
	2	2	30	5.01	1.32
	2	1	36	4.8	1.26
	1	2	24	4.24	1.45

Table 29

Effects on Perceived Empathy Rating: Treatment and Cell Summary Statistics

	VED	HO	N	$\bar{x}$	SD
Overall	.	.	112	4.55	1.53
VED:					
Positive Displays	1	.	46	4.28	1.71
Negative Displays	2	.	66	4.70	1.38
HO:					
No Diabetes	.	1	58	4.7	1.48
Diabetes	.	2	54	4.34	1.58
VED x HO:					
Valence x Health Outcome	1	1	22	5.14	1.29
	2	2	30	5.00	1.11
	2	1	36	4.43	1.54
	1	2	24	3.64	1.65

Table 30

Effects on Satisfaction Rating: Treatment and Cell Summary Statistics

	VED	HO	N	$\bar{x}$	SD
Overall	.	.	112	3.31	1.36
VED:					
Positive Displays	1	.	46	3.13	1.53
Negative Displays	2	.	66	3.43	1.23
HO:					
No Diabetes	.	1	58	3.42	1.30
Diabetes	.	2	54	3.19	1.42
VED x HO:					
Valence x Health Outcome	1	1	22	3.81	1.28
	2	2	30	3.76	1.12
	2	1	36	3.21	1.28
	1	2	24	2.58	1.51

Table 31

Correlations Between Predicted Dependent Variable and Covariates

DV / Covariates	Reliability	Empathy	Satisfaction
Reliability	....	.887	.616
Empathy	.614	....	.758
Satisfaction	.477	.846	....

inappropriate (non-normative) emotional displays were conveyed and conditions 1 and 2 where appropriate (normative) emotion was expressed. However, no significant differences appeared between either of the two conditions where appropriate emotion was expressed and condition 3 where subjects were exposed to expressed negative emotion given a positive health outcome.

Displays of Categorical Emotions and the Delivery of Prototypical Scripts.

Hypothesis H5e suggested that the discrete category of emotional displays and social context considerations will contribute to consumer perceptions of *conveyance* of the service attributes caring, interest, and empathy. Hypothesis H5f held that the discrete category of emotional displays and social context considerations will contribute to consumer perceptions of responsiveness by the provider. Given the high level of correlation between *conveyance* and *responsiveness* ($r = .80$) uncovered in confirmatory factor analyses (see Tables 25 and 26), a separate analysis of variance was conducted for each DV with the other entered as a covariate. Ratings on the two dependent variables consisted in mean scores on each three-item composite. Independent variables were *displayed categorical emotion* and *health outcome*. As indicated in Table 32 and Figure 28, a significant main effect of *displayed categorical emotion* ($F(1,106) = 7.14$, $p < .01$) and a significant interaction appeared for *conveyance* ($F(1,106) = 19.31$, $p < .001$). The interaction explained more variance in the dependent variable than the main effect. Hence, hypothesis H5e was confirmed. Other cell and treatment statistics from this analysis appear in Table 33. With respect to *responsiveness*, the interaction was non-significant ($F(1,106) = 0.13$, $p > .7$). Hypothesis H5f was therefore disconfirmed. Consequently, this also invalidated hypothesis H5h.

Hypothesis H5g suggested that appropriate emotional displays will be positively related to perceptions of *conveyance* of the service attributes caring, interest, and empathy; and conversely, that inappropriate emotional displays will be negatively related to consumer perceptions of conveyance of the service attributes caring, interest, and empathy. A four-group comparison test was carried out for the DV *conveyance*. A Bonferroni-type adjustment (LSD test with significance level = .008) was used. Results indicated that four comparisons were significant (points 4 vs. 1, points 4 vs. 2, points 4 vs. 3, and points 3 vs. 2 in Figure 28).

Table 32

Separate ANOVA Tests of the Effects of Displayed Categorical Emotion, Health Outcome, and their Interaction on Perceived Conveyance and Responsiveness

IV	DV	Univariate F	p	df
DCE	Conveyance[a]**	7.14	.009	1/106
	Responsiveness	1.61	.207	1/106
HO	Conveyance	.04	.845	1/106
	Responsiveness	1.39	.240	1/106
DCE x HO	Conveyance***	19.31	.000	1/106
	Responsiveness	.13	.732	1/106

[a] In each ANOVA model, one DV was entered and the other considered as a covariate.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

Figure 28

Effects of Valence of Emotional Displays and Health Outcome on Perceived Conveyance

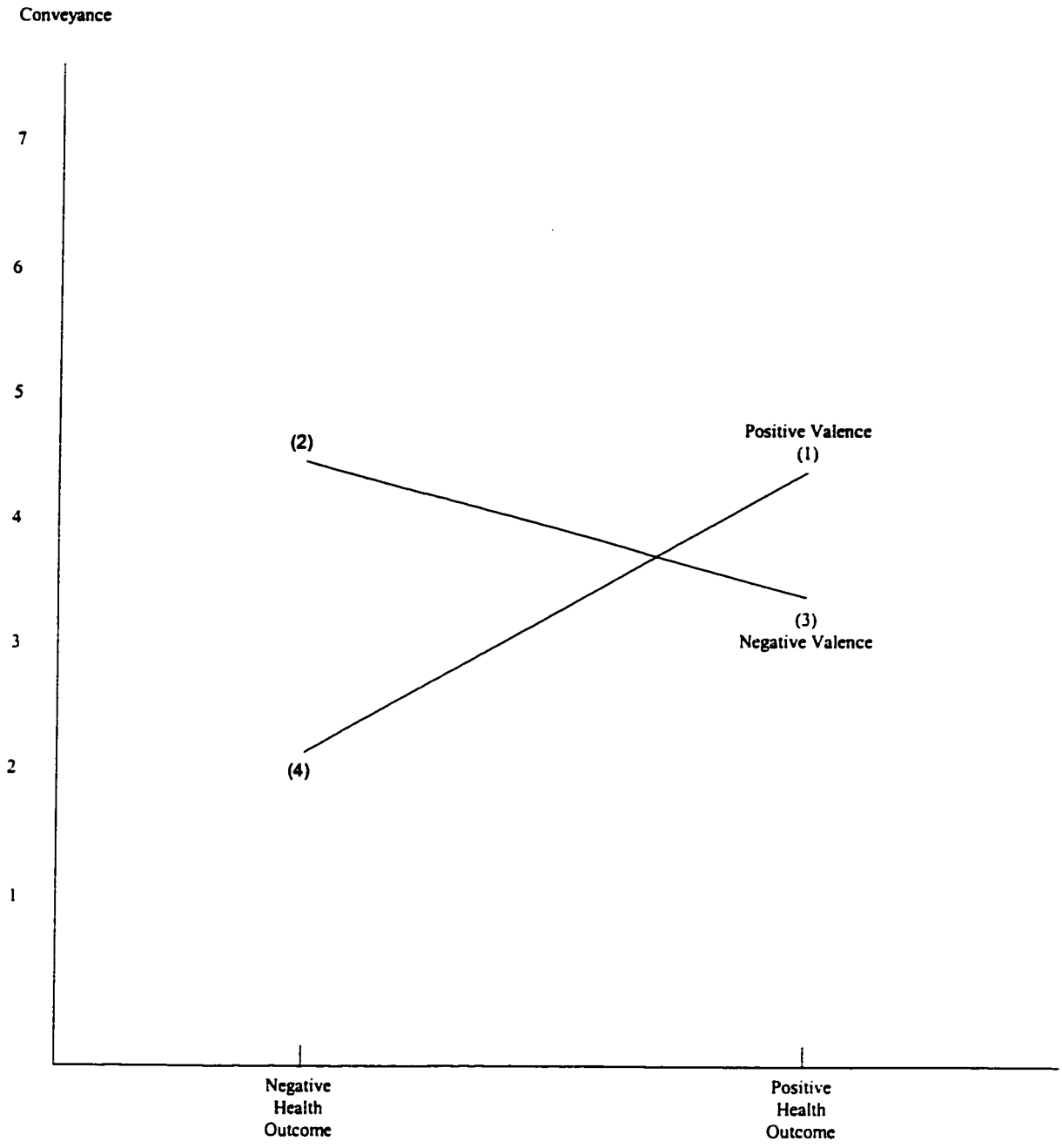


Table 33

Effects on Mean Conveyance Rating: Treatment and Cell Summary Statistics

	DCE	HO	N	$\bar{x}$	SD
Overall:	.	.	111	3.93	1.78
DCE:					
Displayed Happiness	1	.	46	3.51	1.77
Displayed Sadness	2	.	65	4.24	1.71
HO:					
No Diabetes	.	1	46	4.08	1.6
Diabetes	.	2	65	3.79	1.93
DCE x HO:					
Category x Health Outcome	1	1	22	4.68	1.24
	2	2	30	4.88	1.53
	2	1	35	3.67	1.70
	1	2	24	2.43	1.54

In Figure 28, groups exposed to appropriate displays are indicated by points 1 (positive displays of emotion given a positive health outcome) and 2 (negative displays of emotion given a negative health outcome) and groups exposed to inappropriate displays appear as points 3 (negative displays of emotion given a positive health outcome) and 4 (positive displays of emotion given a negative health outcome). Significant differences with respect to perceived *conveyance* appeared between condition 4 where inappropriate (non-normative) emotional displays were conveyed and conditions 1 and 2 where appropriate (normative) emotions were expressed. Furthermore, the significant comparison between condition 3 where inappropriate emotion was expressed and condition 2 in which appropriate emotion was delivered also suggested that the hypothesis was viable. However, the comparison between conditions 3 and 1 was non-significant. Hence, hypothesis H5g was only partly confirmed.

10.2.6 Tests of Hypotheses: Provider Emotional Displays and Impression Formation

Attribution and Impression Formation. Hypothesis H6a held that the interaction between the valence of emotional displays and the context in which they are expressed will explain more variance in ratings on the *locus* (internal-external) dimension of attributions made with respect to provider emotional displays than the direct influences of either valence or context alone. A 2 x 2 full factorial analysis of variance was performed. Independent variables were *valence of emotional displays* and *health outcome*. The dependent variable consisted in the mean score on the three-item *locus* composite of Russell's (1982) *Causal Dimension Scale*. The factorial structure of this scale and reliability estimates for each of its three dimensions appear in Table 18. ANOVA results are reported in Table 34 and Figure 29. Only the interaction emerged as significant ($F(1,111) = 7.32, p < .01$). Hence, hypothesis H6a was confirmed. Other cell and treatment means appear in Table 35.

Hypothesis H6b suggested that customers or clients will attribute a service provider's appropriate emotional displays to situational factors; and conversely, that customers or clients will attribute a service provider's inappropriate emotional displays to dispositional factors. The plots in Figure 29 generally suggest that hypothesis H6b was confirmed because conditions in which inappropriate emotions were conveyed (points 3 and 4) were associated

Table 34

Valence of Emotional Displays and Health Outcome Effects on the Locus Dimension of Attribution

Source	df	Sum of Squares	MS	F	p
Between Subjects (Total)	114	136.83	1.20		
Model	3	11.17	3.72	3.29	0.023
Within Cells (Error)	111	125.66	1.13		
Valence of Emotional Displays (VED)	1	.73	.73	0.65	0.423
Health Outcome (HO)	1	2.15	2.15	1.90	0.171
VED x HO	1	8.29	8.29	7.32	0.008

R-Squared = .082
Adjusted R-Squared = .057

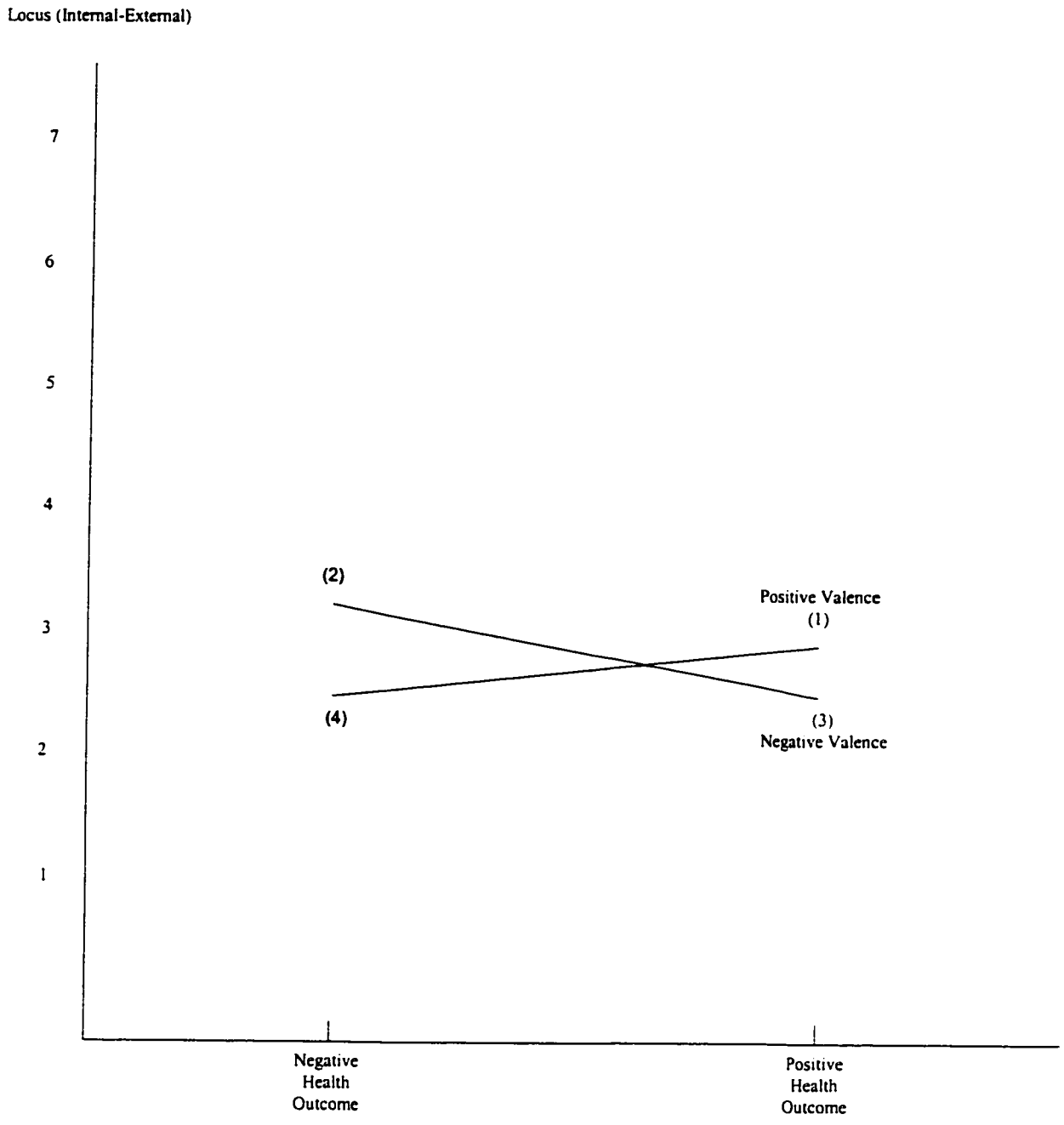
Table 35

Effects on Mean Locus Rating: Treatment and Cell Summary Statistics

	VED	HO	N	$\bar{x}$	SD
Overall	.	.	115	2.78	1.1
VED:					
Positive Displays	1	.	47	2.68	0.995
Negative Displays	2	.	68	2.84	1.16
HO:					
No Diabetes	.	1	59	2.65	1.08
Diabetes	.	2	56	2.91	1.10
VED x HO:					
Valence x Health Outcome	1	1	22	2.88	0.82
	2	2	31	3.24	0.99
	2	1	37	2.51	1.20
	1	2	25	2.51	1.11

Figure 29

Effects of Valence of Emotional Displays and Health Outcome on Locus



to lower ratings on the locus dimension in comparison to conditions where appropriate emotions were delivered (points 1 and 2). Lower scores on this composite are indicative of a dispositional attribution whereas a higher score represents a situational attribution. A four-group comparison test based on a Bonferroni-type adjustment (LSD test with significance level = .008) was carried out for the DV *locus*. Results indicated that only one comparison was significant (points 3 vs. 2 in Figure 29). Significant differences with respect to *locus* appeared between condition 3 where inappropriate (non-normative) emotional displays were conveyed (negative displayed valence given a positive health outcome) and condition 2 where appropriate (normative) emotions were expressed (negative displayed valence given a negative health outcome).

Emotional Expressivity as a Dispositional Inference. Hypothesis H7a proposed that the main effect of valence of emotional displays will explain more variance in dispositional judgments of provider expressivity than the main effect of social context or their interaction.. A 2 x 2 full factorial multiple analysis of variance (MANOVA) was performed. Independent variables were *valence of emotional displays* and *health outcome*. Emotional expressivity was assessed with Gross and John's (1997) BEQ with a focus on two of its three dimensions. The two dependent variables consisted in the mean score on a three-item composite assessing *negative expressivity* and the mean score on another three-item composite measuring *positive expressivity*.

Prior to inclusion of ratings on dimensions of the BEQ in the MANOVA, a purification of the scales was carried out (Churchill, 1979; Gerbing & Anderson, 1988). A principal components EFA with varimax rotation of the ten items which make up the *negative* (6 items) and *positive expressivity* (4 items) dimensions recaptured two factors (Eignevalue 1 = 2.71; Eigenvalue 2 = 2.00) which explained 47.1% of the total variance in the data. However, one item (item 6 of the BEQ as it appears in Appendix I) displayed loadings below .4 on either factor. This item was consequently deleted from the *negative expressivity* composite. Cronbach's coefficient alpha for the resulting five item *negative expressivity* composite was estimated at $\alpha = .570$ and the estimate for the four-item *positive expressivity* composite was $\alpha = .809$, respectively. Subsequently, two items with item-total

correlations below .5 were deleted from the *negative expressivity* composite. Cronbach's alpha for the resulting three-item composite was estimated at $\alpha = .641$.

Next, a two-factor CFA was performed on the seven remaining items. It resulted in unacceptable levels of overall fit ($\chi^2 = 40.65$ with 13 degrees of freedom ($p = 0.00011$); NFI = 0.83; CFI = 0.87). Furthermore, three substantial standardized residuals emerged which involved the same indicator of *positive expressivity* (item 10 of the BEQ as it appears in Appendix I). Respecification involved the deletion of this item. Estimation of the resulting six-item model now yielded acceptable levels of overall fit ($\chi^2 = 17.18$ with 8 degrees of freedom ($p = 0.028$); NFI = 0.90; CFI = 0.94). The estimated correlation between the two factors was fairly low ($\phi_{21} = 0.12$). Coefficient alpha for the three-item *positive expressivity* composite was reestimated at $\alpha = .79$.

The omnibus MANOVA on the combined DVs indicated with respect to the Wilks' criterion a significant main effect for valence of emotional displays ($F(2,111) = 15.95$, $p < .001$) and a non-significant main effect for health outcome ($F(2,111) = 1.99$, $p > .1$). The two-way interaction ($F(2,111) = 2.24$, $p > .1$) also emerged as non-significant. Hypothesis H7a was therefore confirmed. Results of univariate analyses are consolidated in Table 36. Hypothesis H7b suggested that negative displays of emotion by the provider will result in a dispositional judgment of negative expressivity; and conversely, that positive displays of emotion by the provider will result in a dispositional judgment of positive expressivity. For the main effect of *valence of emotional displays*, the analyses revealed that significant differences between subjects in conditions where *positive emotion* was displayed and those in conditions where *negative emotion* was expressed appeared with respect to both *negative expressivity* ($F(2,111) = 23.34$, $p < .001$) and *positive expressivity* ($F(2,111) = 5.21$, $p < .05$), respectively. In comparison to subjects in conditions involving negative emotional displays, subjects in conditions which involved positive emotional displays rated the provider more highly on *positive expressivity* ($\bar{x}$: positive emotional displays = 4.45, $\bar{x}$: negative emotional displays = 3.78) and less highly on *negative expressivity* ($\bar{x}$: positive emotional displays = 3.62, $\bar{x}$: negative emotional displays = 4.80). Hence, hypothesis H7b was confirmed.

Unexpectedly, the main effect of *health outcome* appeared barely significant for the

Table 36

MANOVA Tests of the Effects of Valence of Emotional Displays, Health Outcome, and Their Interaction on Positive and Negative Emotional Expressivity Ratings of the Service Provider

IV	DV	Univariate F	p	df
VED	Negative Expressivity	23.34***	.000	2/111
	Positive Expressivity	5.21*	.024	2/111
HO	Negative Expressivity	0.29	.591	2/111
	Positive Expressivity	3.95*	.049	2/111
VED x HO	Negative Expressivity	2.35	.154	2/111
	Positive Expressivity	1.66	.178	2/111

*** $p < .001$
** $p < .01$
* $p < .05$

DV *positive expressivity* ($F(2,111) = 3.95$, $p < .05$). Hence, this DV distinguished between subjects in conditions with a positive health outcome and conditions with a negative health outcome. Relative to subjects in conditions involving a negative health outcome, subjects in conditions with a positive health outcome rated the provider less highly on positive expressivity ($\bar{x}$: positive health outcome = 3.75, $\bar{x}$: negative health outcome = 4.36).

Hypothesis H7c held that negative displays of emotion by the provider will result in negative behavioral intentions toward the provider; and conversely, that positive displays of emotion by the provider will result in positive behavioral intentions toward the provider. A 2 x 2 full factorial analysis of variance was performed. Independent variables were *valence of emotional displays* and *health outcome*. The dependent variable consisted in the mean score on the four-item *behavioral intention* composite examined earlier ($\alpha = .9375$). *Negative* and *positive expressivity* were entered as covariates. ANOVA results are reported in Table 37 and Figure 30. The main effect of *valence of emotional displays* was non-significant ($F(1,109) = 0.74$, $p > .1$). Only the interaction was significant ($F(1,109) = 21.19$, $p < .001$). Hence, hypothesis H7c was disconfirmed. Other cell and treatment means appear in Table 38. The correlation between the DV *behavioral intentions* and *positive expressivity* was $r = .500$ whereas that between the DV and *negative expressivity* was $r = -.055$. Among the two covariates, only *positive expressivity* emerged as significant ($p < .05$). A four-group comparison test based on a Bonferroni-type adjustment (LSD test with significance level = .008) was carried out for the DV. Results indicated that four comparisons were significant (points 4 vs. 2, 4 vs. 1, 3 vs. 2, and 3 vs. 1 in Figure 30). These results clearly pointed to the effects of the appropriateness of displayed emotion (interaction between valence and health outcome) on the behavioral intentions of consumers rather than simply to the effects of the valence of the displays. Specifically, the conditions in which appropriate emotions were displayed (points 1 and 2 in Figure 30) were associated to higher scores on the DV whereas those which involved inappropriate emotions (points 3 and 4) lead to relatively less favorable intentions.

Table 37

Valence of Emotional Displays and Health Outcome Effects on Behavioral Intentions with Positive and Negative Expressivity Entered as Covariates

Source	df	Sum of Squares	MS	F	p
Between Subjects (Total)	114	313.99	2.75		
Model	5	68.95	13.79	6.13	0.000
Within Cells (Error)	109	245.04	2.25		
Valence of Emotional Displays (VED)	1	1.67	1.67	0.74	0.390
Health Outcome (HO)	1	0.20	0.20	0.09	0.769
VED x HO	1	47.65	47.65	21.19	0.000

R-Squared = .220
Adjusted R-Squared = .184

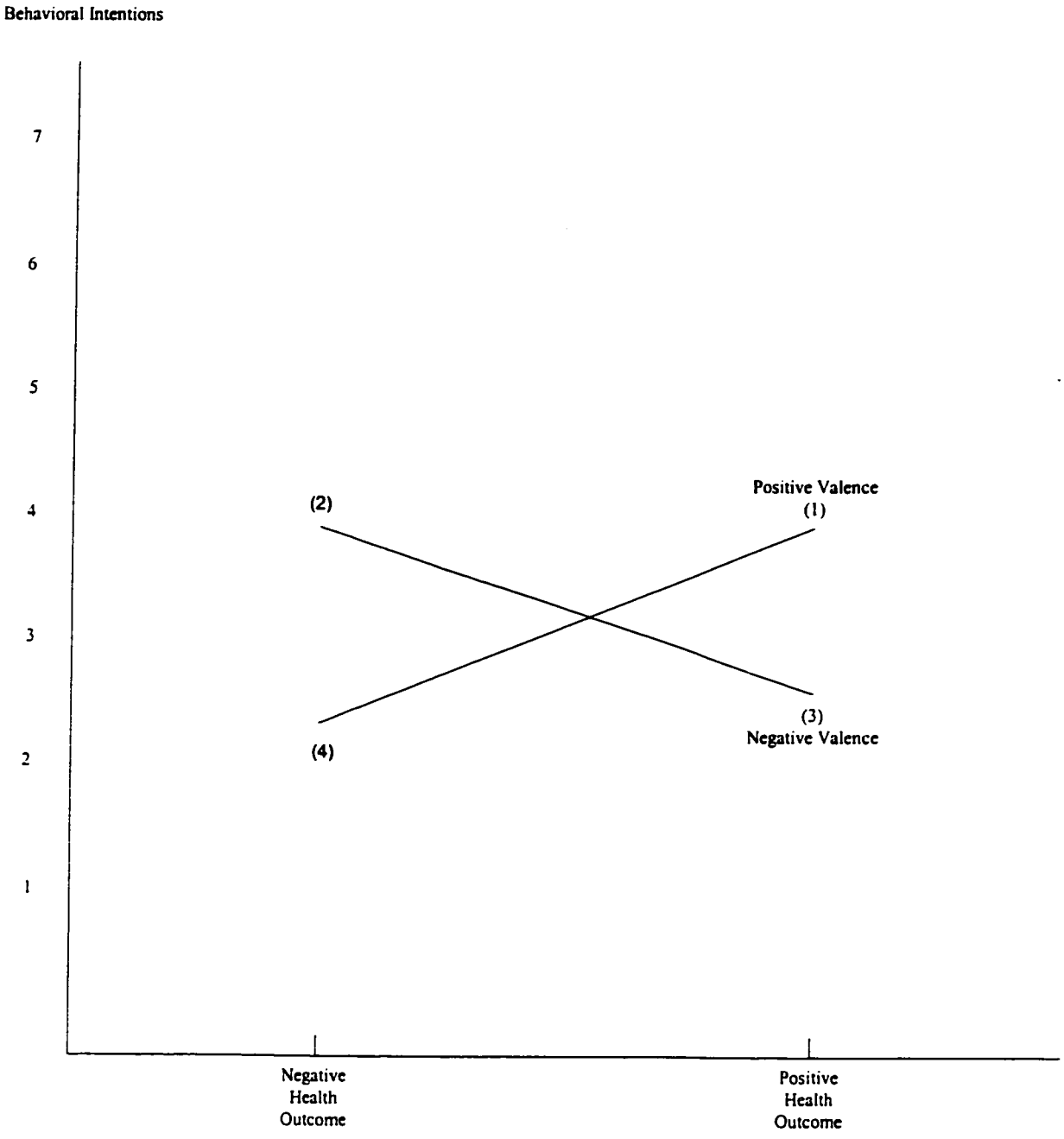
Table 38

Effects on Mean Behavioral Intentions Rating: Treatment and Cell Summary Statistics

	VED	HO	N	$\bar{x}$	SD
Overall:	.	.	115	3.11	1.66
VED:					
Positive Displays	1	.	47	3.04	1.79
Negative Displays	2	.	68	3.15	1.58
HO:					
No Diabetes	.	1	59	3.01	1.62
Diabetes	.	2	56	3.20	1.71
VED x HO:					
Valence x Health Outcome	1	1	22	3.83	1.6
	2	2	31	3.90	1.4
	2	1	37	2.53	1.45
	1	2	25	2.34	1.68

Figure 30

Effects of Valence of Emotional Displays and Health Outcome on Behavioral Intentions



10.2.7 Structural Equation Modeling: Provider Emotion, Consumer Emotion, and Service Evaluation

The models in Figures 31 and 32 were estimated with the structural equation modeling (SEM) program LISREL VIII (Jöreskog & Sörbom, 1993). A variety of procedures were initially considered (see Bagozzi & Yi, 1989; Bagozzi, Yi, & Singh, 1991; Bateson & Hui, 1992; Byrne, 1998). The procedure discussed in Bagozzi and Yi (1989) and later extended in Bagozzi et al., (1991) essentially provides a way to conduct (M)ANOVA with SEM of mean structures. It involves consideration of IVs as exogenous variables. Although this approach first appeared enticing, the hypothesized effects of IVs on particular DVs had already been tested with conventional analysis of variance procedures (see previous sections). Moreover, in a two-way factorial design specified as an SEM, the use of one IV as a grouping variable for subsequent comparisons excludes using that IV from the estimated model. Furthermore, our interest rested more on the nomological net of dependent variables specified in Figures 31 and 32 than on the direct effects of IVs on DVs. Hence, we opted not to include the manipulated variables (IVs) within the models. Each model was therefore estimated as it appears in each of the two figures.

The model in Figure 31 was estimated with a covariance matrix generated with pooled data from subjects in conditions 3 and 4 (n = 62). Both conditions involved failure in emotional labor. The chi-square estimate suggested poor levels of overall fit ($\chi^2 = 90.54$ with 61 degrees of freedom; $p = 0.0084$). Additional indexes also pointed to unacceptable levels of fit (NFI = 0.88; CFI = 0.95). Given the number of indicators in the measurement model, item purification was attempted to the extent that it did not jeopardize model identification. A large standardized residual appeared between two items which were also associated to error variance estimates greater than .5. Respecification consisted in deleting both items from the measurement model. One item measured *satisfaction* and the other assessed *behavioral intention*. The model was subsequently reestimated. Model estimates appear in Table 39. The deletion of the two problematic items resulted in acceptable levels of overall fit ($\chi^2 = 56.78$ with 40 degrees of freedom ($p = 0.041$); NFI = 0.91; CFI = 0.97). Estimates of the coefficients which related the various latent variables indicated that the

Figure 31

Structural Equation Model of a Cognitive Consumer Emotion Process and Service Evaluation Factors: Controlled Processing in Eventful Encounters

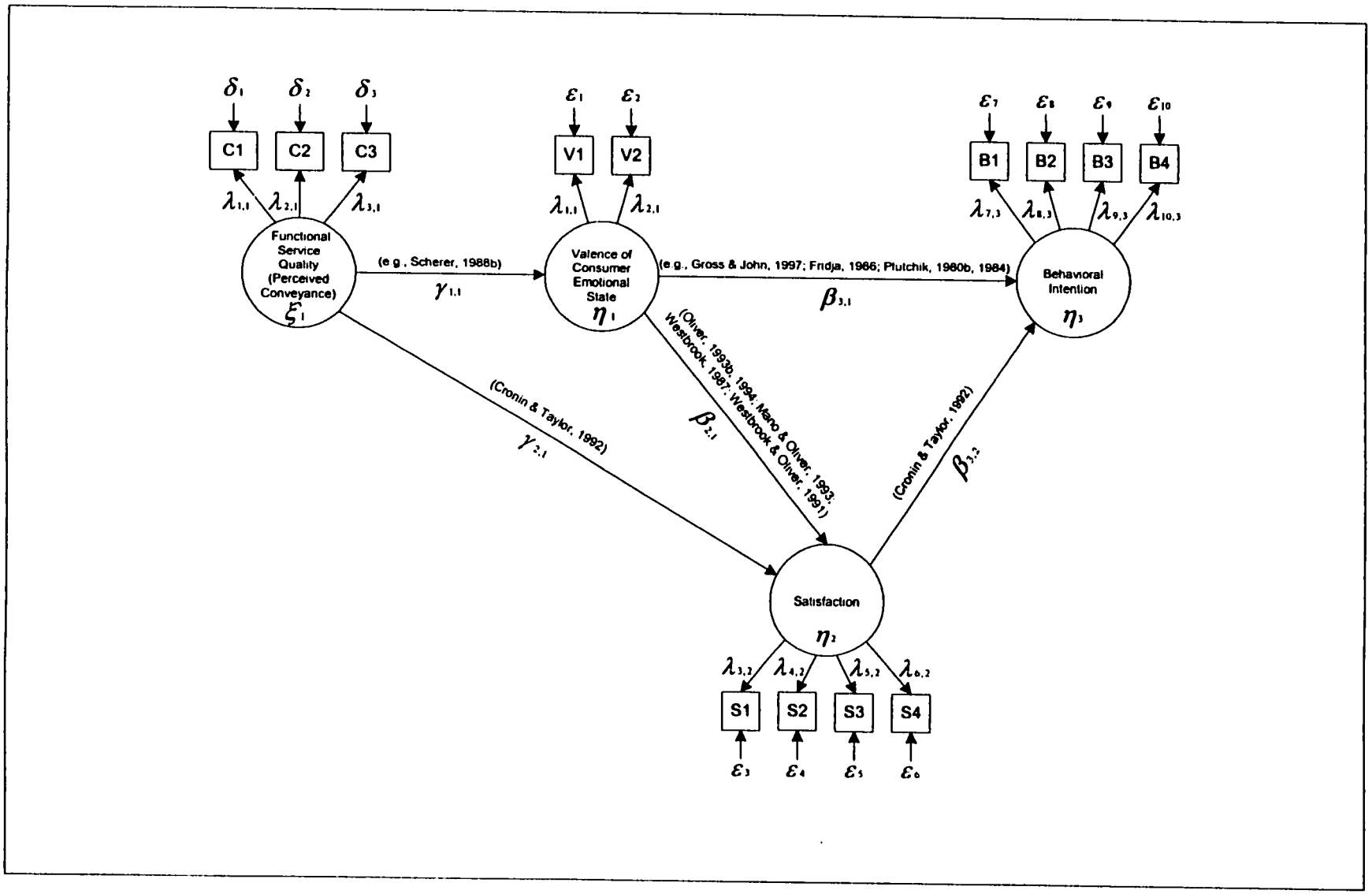


Figure 32

Structural Equation Model of Emotional Contagion and Service Evaluation Factors: Automatic Processing in Uneventful Encounters

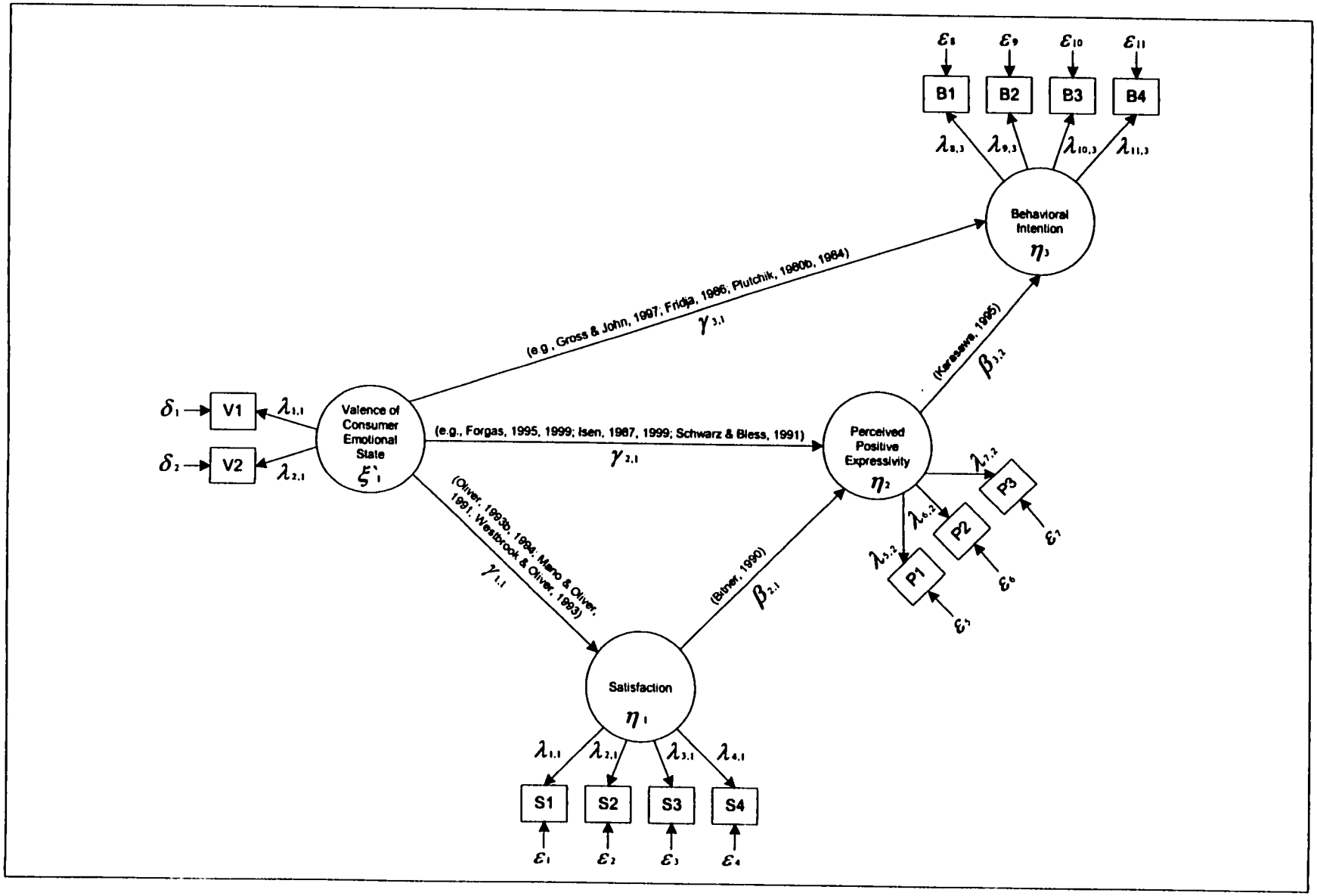


Table 39

LISREL Estimates of Model of a Cognitive Emotion Process and Service Evaluation

Items	Param.[a]	Estimate	t-Value	S.E.
Measurement Model:				
Perceived Conveyance (ξ_1):				
Physician displays caring[b].	$\lambda_{1,1}$	.76	...	...
Physician displays appropriate interest.	$\lambda_{2,1}$	.89	7.45	.16
Physician displays empathy.	$\lambda_{3,1}$	.90	7.48	.16
Consumer Valence (η_1):				
When the physician was addressing you in the video, the emotion you predominantly felt was ...	$\lambda_{1,1}$	.57	...	...
Mean score on Mehrabian and Russell's (1974a, b) pleasure component of the PAD[c]	$\lambda_{2,1}$	.95	5.33	.31
Felt Satisfaction (η_2):				
My feelings towards this physician's services can best be described as ...	$\lambda_{3,2}$	.90	...	...
My feelings towards this physician's proposed diagnosis and treatment can best be described as ...	$\lambda_{4,2}$	.65	6.09	.12
My feelings towards the way this physician related to me emotionally was ...	$\lambda_{5,2}$	.85	9.40	.10
Behavioral Intention (η_3):				
How likely are you to return to this doctor	$\lambda_{6,3}$	.96	...	...
How likely are you to spend more time with this doctor	$\lambda_{7,3}$	.94	17.84	.05
How likely are you to make another appointment with this doctor	$\lambda_{8,3}$	.96	19.83	.05

Table 39 Cont'd

Param.[a]	Estimate	t-Value	S.E.
Latent Variable Model:			
$\beta_{2,1}$	.25	1.89	.21
$\beta_{3,1}$	.04	0.42	.14
$\beta_{3,2}$	.85	8.55	.11
$\gamma_{1,1}$	.18	1.33	.10
$\gamma_{2,1}$	.38	2.91	.16

Correlations of Factors:

	η_1	η_2	η_3	ξ_1
η_1	1.00			
η_2	.32	1.00		
η_3	.31	.86	1.00	
ξ_1	.18	.42	.37	1.00

Goodness of Fit Statistics:

χ^2 (p-value)	56.78 (0.041)
df	40
NFI	.91
CFI	.97
IFI	.97
AGFI	.81
RMR	.076
RMSEA	.079

[a] All parameter estimates are standardized.

[b] Items are paraphrased.

[c] A Cronbach alpha of .9 was obtained for this composite. Therefore, the measurement error (ϵ_2) and its corresponding loading (λ_{21}) were fixed at .10 (1 - α) and .95 (the square root of α).

proposed model did not adequately represent the relations among latent constructs. In fact, only two coefficients emerged as significant (β_{32} and γ_{21}). In other words, the hypothesized relationships between perceived *conveyance* (ξ_1) and the *valence* (η_1) of consumer emotion was non-significant. In addition, the proposed relationship between *valence* (η_1) and *satisfaction* (η_2) along with that between *valence* (η_1) and *behavioral intention* (η_3) also emerged as non-significant. In essence, estimation of this model suggested that *service quality* significantly impacts *satisfaction* which, in turn, significantly impacts *behavioral intention*. This mirrored the results reported in Cronin and Taylor (1992). However, contrary to what was suggested, consumer emotion was not a function of functional service quality judgments (i.e., *conveyance*) nor did it carry an impact on the other evaluation factors.

The inability of the estimated model to account for a cognitive emotion process rested perhaps in our choice of *conveyance* as the single dimension of appraisal taken as an antecedent to consumer emotion (i.e., *valence*). Dimensions of appraisal vary with respect to the amount of variance they explain in emotion (e.g., Scherer, 1984a, 1988b; Scherer & Ceschi, 1997; Smith & Ellsworth, 1987; Smith & Lazarus, 1993). We reasoned that a more general assessment of displayed emotion by the service provider involved an appropriateness judgment. This dimension of evaluation is most basic. It is indicated throughout much of the literature on emotion in sociology from the perspective of cultural analysis (see Kemper, 1991, 1993) and in social constructivist writings (e.g., Averill, 1980a, b, c; Hochschild, 1979, 1983a; Mandler, 1990, 1992). It also appears under one name or another within proposed sets of appraisal dimension in cognitive theories of emotion (e.g., Scherer & Ceschi, 1997).

The latent variable model in Figure 31 was now reestimated with *appropriateness* as the exogenous variable (ξ_1) and a one-item *appropriateness* measure now replaced the three items which were used earlier to assess *conveyance* in the previous estimation. The measures underlying the η's were identical to the specification reported in Table 39. Estimation of this model yielded acceptable to high levels of overall model fit ($\chi^2 = 24.03$ with 24 degrees of freedom ($p = 0.46$); NFI = 0.95; CFI = 1.00). Fit did not seem to be attributable to overparameterization (see Hu & Bentler, 1995). Parameter estimates appear in Table 40. Similar results to those reported in Table 39 emerged. Again, only the structural coefficients

Table 40

LISREL Estimates of Model of an Alternate Cognitive Emotion Process and Service Evaluation

Items	Param.[a]	Estimate	t-Value	S.E.
Measurement Model:				
Appropriateness (ξ_1):				
The emotions displayed by the physician were ...	$\lambda_{1,1}$	.95[b]	...	...
Consumer Valence (η_1):				
When the physician was addressing you in the video, the emotion you predominantly felt was ...	$\lambda_{1,1}$	.57	...	...
Mean score on Mehrabian and Russell's (1974a, b) pleasure component of the PAD[c]	$\lambda_{2,1}$	.95	5.33	.31
Felt Satisfaction (η_2):				
My feelings towards this physician's services can best be described as ...	$\lambda_{3,2}$	.87	...	...
My feelings towards this physician's proposed diagnosis and treatment can best be described as ...	$\lambda_{4,2}$	.63	5.79	.12
My feelings towards the way this physician related to me emotionally was ...	$\lambda_{5,2}$	.87	9.43	.11
Behavioral Intention (η_3):				
How likely are you to return to this doctor	$\lambda_{6,3}$	.96	...	...
How likely are you to spend more time with this doctor	$\lambda_{7,3}$	.94	17.93	.05
How likely are you to make another appointment with this doctor	$\lambda_{8,3}$	.96	19.83	.05

Table 40 Cont'd

Param.[a]	Estimate	t-Value	S.E.
Latent Variable Model:			
$\beta_{2,1}$	.17	1.45	.18
$\beta_{3,1}$	.04	0.45	.14
$\beta_{3,2}$	.87	8.70	.11
$\gamma_{1,1}$	.23	1.64	.08
$\gamma_{2,1}$	.64	5.52	.11

Correlations of Factors:

	η_1	η_2	η_3	ξ_1
η_1	1.00			
η_2	.31	1.00		
η_3	.31	.88	1.00	
ξ_1	.23	.67	.60	1.00

Goodness of Fit Statistics:

χ^2 (p-value)	24.03 (0.46)
df	24
NFI	.95
CFI	1.00
IFI	1.00
AGFI	.86
RMR	.077
RMSEA	.0045

[a] All parameter estimates are standardized.

[b] The error variance term was fixed at $\delta_1 = .1$.

[c] A Cronbach alpha of approximately .9 was obtained for this composite. Therefore, the error variance term (ϵ_2) and its corresponding loading (λ_{21}) were fixed at .10 (1 - α) and .95 (the square root of α).

β_{32} and γ_{21} were significant. Hence, consumers' emotional *valence* appears to play no role as a determinant of felt *satisfaction* or *behavioral intention*. Nor is it determined by judgments of *appropriateness* with respect to the emotional displays of the service provider after failure in emotional labor.

Next, the model in Figure 32 was estimated with a covariance matrix generated with pooled data from subjects in conditions 1 and 2 (n = 54). These experimental conditions involved appropriate emotional displays and hence, no failure in emotional labor. This model suggests that consumer affect is socially-induced and that it consequently impacts the three service evaluation factors. When estimated, the fit of the model was rather unimpressive (χ^2 = 94.44 with 61 degrees of freedom (p = 0.0039); NFI = 0.78; CFI = 0.90). Frequent and substantial standardized residuals emerged between the items which assessed *satisfaction* and those which measured *behavioral intention*. Among these items some were also associated to relatively higher error variances. These items were deleted and the model was reestimated sequentially until it appeared that additional item deletions no longer contributed to increases in overall model fit and that model identification would soon be jeopardized. The parameter estimates of the retained model appear in Table 41. Overall model fit was still rather poor (χ^2 = 52.66 with 23 degrees of freedom (p = 0.00041); NFI = 0.78; CFI = 0.85). However, an examination of the modification indices suggested that if coefficient β_{31} was set free, a substantial improvement in fit could be expected. Allowing this coefficient to be estimated implied a direct relation between *satisfaction* and *behavioral intention*. This relation was not counterintuitive and could be easily grounded in past findings (see Oliver, 1993b, 1994, 1996). Hence, the model was reestimated with this specification. Reestimation resulted in acceptable levels of overall model fit (χ^2 = 30.65 with 22 degrees of freedom (p = 0.10); NFI = 0.87; CFI = 0.96). The parameter estimates of this model appear in Table 42. Only two structural parameter estimates are significant. The significant γ_{11} suggests that consumer emotion (i.e., *valence*) has an impact on *satisfaction*. The significant coefficient β_{31} indicates a relation between *satisfaction* and *behavioral intention*. No significant relationship appears suggested between *perceived positive expressivity* and any other latent variable included in the model.

Table 41

LISREL Estimates of a Model of Socially-Induced Affect and Service Evaluation

Items	Param.[a]	Estimate	t-Value	S.E.
Measurement Model:				
Consumer Valence (ξ_1):				
When the physician was addressing you in the video, the emotion you predominantly felt was ...	$\lambda_{1,1}$	.83	...	...
Mean score on Mehrabian and Russell's (1974a, b) pleasure component of the PAD[b]	$\lambda_{2,1}$	.95	8.34	.14
Felt Satisfaction (η_1):				
My feelings towards how this physician delivered his services to me can best be described as ...	$\lambda_{1,1}$	1.0	...	...
My feelings towards the way this physician related to me emotionally was ...	$\lambda_{2,1}$	.53	2.11	.24
Perceived Positive Emotional Expressivity (η_2):				
When this physician is happy, his feelings show	$\lambda_{3,2}$	.60	...	...
Whenever this physician feels positive emotions; people can easily see exactly what he is feeling	$\lambda_{4,2}$	.92	3.55	.43
This physician laughs out loud when someone tells him a joke that he thinks is funny	$\lambda_{5,2}$	.67	3.53	.31
Behavioral Intention (η_3):				
How likely are you to spend more time with this doctor	$\lambda_{6,3}$	.98	...	...
How likely are you to make another appointment with this doctor	$\lambda_{7,3}$	.90	6.15	.15

Table 41 Cont'd

Param.[a]	Estimate	t-Value	S.E.
Latent Variable Model:			
$\beta_{2,1}$	.21	0.96	.13
$\beta_{3,2}$	.41	2.43	.28
$\gamma_{1,1}$	.50	3.56	.18
$\gamma_{2,1}$	-0.06	-0.28	.15
$\gamma_{3,1}$	.28	1.98	.17

Correlations of Factors:

	η_1	η_2	η_3	ξ_1
η_1	1.00			
η_2	.18	1.00		
η_3	.22	.42	1.00	
ξ_1	.50	.05	.30	1.00

Goodness of Fit Statistics:

χ^2 (p-value)	52.66 (0.00041)
df	23
NFI	.78
CFI	.85
IFI	.86
AGFI	.64
RMR	.15
RMSEA	.17

[a] All parameter estimates are standardized.

[b] A Cronbach alpha of approximately .9 was obtained for this composite. Therefore, the error variance term (ϵ_2) and its corresponding loading (λ_{21}) were fixed at .10 (1 - α) and .95 (the square root of α).

Table 42

LISREL Estimates of a Less Constrained Model of Socially-Induced Affect and Service Evaluation

Items	Param.[a]	Estimate	t-Value	S.E.
Measurement Model:				
Consumer Valence (ξ_1):				
When the physician was addressing you in the video, the emotion you predominantly felt was ...	$\lambda_{1,1}$	.82	...	...
Mean score on Mehrabian and Russell's (1974a, b) pleasure component of the PAD[b]	$\lambda_{2,1}$	.95	8.34	.14
Felt Satisfaction (η_1):				
My feelings towards how this physician delivered his services to me can best be described as ...	$\lambda_{1,1}$	.83	...	...
My feelings towards the way this physician related to me emotionally was ...	$\lambda_{2,1}$	.66	4.42	.18
Perceived Positive Emotional Expressivity (η_2):				
When this physician is happy, his feelings show	$\lambda_{3,2}$	.58	...	...
Whenever this physician feels positive emotions; people can easily see exactly what he is feeling	$\lambda_{4,2}$	.95	3.28	.50
This physician laughs out loud when someone tells him a joke that he thinks is funny	$\lambda_{5,2}$	.65	3.48	.32
Behavioral Intention (η_3):				
How likely are you to spend more time with this doctor	$\lambda_{6,3}$	.87	...	...
How likely are you to make another appointment with this doctor	$\lambda_{7,3}$	1.0	8.94	.13

Table 42 Cont'd

Param.[a]	Estimate	t-Value	S.E.
Latent Variable Model:			
$\beta_{2,1}$	.29	1.18	.17
$\beta_{3,2}$	.13	1.00	.19
$\beta_{3,1}$	.91	3.37	.28
$\gamma_{1,1}$	.53	3.05	.18
$\gamma_{2,1}$	-0.13	-0.62	.15
$\gamma_{3,1}$	-0.24	-1.35	.19

Correlations of Factors:

	η_1	η_2	η_3	ξ_1
η_1	1.00			
η_2	.22	1.00		
η_3	.81	.32	1.00	
ξ_1	.53	.002	.25	1.00

Goodness of Fit Statistics:

χ^2 (p-value)	30.65 (0.10)
df	22
NFI	.87
CFI	.96
IFI	.96
AGFI	.75
RMR	.10
RMSEA	.095

[a] All parameter estimates are standardized.

[b] A Cronbach alpha of approximately .9 was obtained for this composite. Therefore, the error variance term (ϵ_2) and its corresponding loading (λ_{21}) were fixed at .10 (1 - α) and .95 (the square root of α).

Clear sample size issues emerge in estimations of the two proposed models. A glance at the often moderate to large standard errors which accompany parameter estimates in Tables 39 to 42 suggest that these estimates are not entirely reliable. The results reported here are therefore to be considered preliminary and must be interpreted with care. Furthermore, the sample sizes ($n_2 = 54$; $n_1 = 62$) used to generate the two covariance matrices submitted to SEM analyses clearly raise justifiable questions as to the use of maximum likelihood (ML) estimation with these models (see Anderson & Gerbing, 1988). Nevertheless, examples of ML estimation with relatively small and comparable sample sizes from experimental data do appear in the literature (e.g., Bateson & Hui, 1992).

10.3 Discussion

In our attempt at explaining the impact on the consumer of expressed emotion by the service provider, a fairly complex web of interactions and main effects appeared. A summary of the (M)ANOVA results for hypotheses H1a through H7c is presented in Table 43. A glance at the results for hypotheses H1a to H2c suggests that Hochschild's (1983a) conceptualization which entailed the adoption of oneway designs (i.e., comparisons between experimental conditions in tests of hypotheses H1b and H2a) is less powerful than one based on the dimensions *valence* and *social context* (see Rafaeli, 1993). The latter enabled a factorial design which, in turn, allowed for interaction effects to appear. Overall, significant interactions consistently emerged when the impact of the two IVs on evaluation factors was examined. Evaluation factors included *appropriateness* ratings (H1a), perceived *empathy* (H5b), level of felt *satisfaction* (H5c), perceived *conveyance* (H5e), the attribution dimension *locus* directed at assessing the causes of emotional displays by the service provider (H6a), and *behavioral intentions* toward the service provider (H7c). Hence, the social context (i.e., health outcome) in which an emotional expression occurs emerges here as a moderator of the relationships between the valence (or category) of expressed emotion and various evaluation factors.

Conditions which involved normative displays of emotion (conditions 1 and 2) typically emerged as the ones which were associated to higher scores on these DVs. Group comparisons based on a rather stringent *least significant difference* (LSD = .008) Bonferroni-

Table 43

Summary of (M)ANOVA Analyses

Hypothesis	Analysis	IV(s)	DV(s)	Significant Effects
H1a	ANOVA	-Valence -Health Outcome	Appropriateness	Interaction
H1a	Bonferroni	-Valence -Health Outcome	Appropriateness	Significant differences in all group comparison tests except that between condition 4 and condition 3
H1b	ANOVA	-Displays Category	Appropriateness	Main effect
H2a	ANOVA	-Displays Category	Pleasure	None
H2b-H2c	ANOVA	-Valence -Heath Outcome	Pleasure	Main effect of valence Main effect of health outcome
H3a-H3b	ANOVA	Categorical Emotion Health Outcome	Index of Happiness	Main effect of categorical emotion Main effect of health outcome
H4a-H4b	Bonferroni	Categorical Emotion Health Outcome	Index of Happiness	Significant differences in all group comparison tests except that between condition 4 and condition 3

Table 43 Cont'd

Hypothesis	Analysis	IV(s)	DV(s)	Significant Effects
H4c	MANOVA (Univariate F)	Categorical Emotion Health Outcome	Happiness Sadness Fear	Main effect of displays category
			Happiness Sadness Fear Anger	Main effect of health outcome
H4c	MANOVA (Stepdown F)	Categorical Emotion Health Outcome	Happiness Sadness Anger Disgust	Main effect of displays category
			Happiness Sadness Anger	Main effect of health outcome
H4c	ANOVAs with five covariates	Categorical Emotion Health Outcome	Happiness Sadness	Main effect of displays category
			Happiness Anger	Main effect of health outcome

Table 43 Cont'd

Hypothesis	Analysis	IV(s)	DV(s)	Significant Effects
H4d	ANOVA with seven covariates	Categorical Emotion Health Outcome	Anger	Main effect of health outcome
H5a	ANOVA with two covariates	Valence Health Outcome	Reliability	None
H5b	ANOVA with two covariates	Valence Health Outcome	Empathy	Interaction
H5c	ANOVA with two covariates	Valence Health Outcome	Satisfaction	Interaction
H5d	Bonferroni Bonferroni	Valence Health Outcome Valence Health Outcome	Satisfaction Empathy	Significant differences in both group comparison tests between condition 4 and conditions 1 and 2
H5e	ANOVA with one covariate	Categorical Emotion Health Outcome	Conveyance	Interaction Main effect of displays category

Table 43 Cont'd

Hypothesis	Analysis	IV(s)	DV(s)	Significant Effects
H5g	Bonferroni	Categorical Emotion Health Outcome	Conveyance	Significant differences in group comparison tests between condition 4 and conditions 1, 2, 3 and between condition 3 and condition 2
H5f-H5h	ANOVA with one covariate	Categorical Emotion Health Outcome	Responsiveness	None
H6a	ANOVA	Valence Health Outcome	Locus	Interaction
H6b	Bonferroni	Valence Health Outcome	Locus	Significant differences in group comparison tests between condition 3 and condition 2
H7a-b	MANOVA	Valence Health Outcome	Negative Expressivity Positive Expressivity	Main effect of valence Main effect of valence Main effect of heath outcome
H7c	ANOVA with two covariates	Valence Health Outcome	Behavioral Intentions	Interaction
H7c	Bonferroni	Valence Health Outcome	Behavioral Intentions	Significant differences in group comparison tests between condition 4 and conditions 2, and 1 and between condition 3 and conditions 2 and 1

type adjustment indicated that significant differences most consistently emerged between the most eventful condition 4 in which inappropriate positive emotional displays were conveyed given a negative health outcome (i.e., displayed pleasure while announcing to the patient that s/he has diabetes) and conditions 1 (positive emotional displays given a positive health outcome) or 2 (negative emotional displays given a negative health outcome) in which appropriate emotions were conveyed. Specifically, these differences appeared with respect to the following DVs: perceived *appropriateness*, level of felt *satisfaction*, perceived *empathy*, perceived *conveyance*, and *behavioral intentions*, respectively. Although with less frequency, significant differences also appeared with respect to service evaluation factors between condition 3 (negative emotional displays given a positive health outcome) and conditions 1 and/or 2. These differences involved the following DVs: perceived *appropriateness*, perceived *conveyance*, the dimension of attribution labeled *locus*, and *behavioral intentions*, respectively.

The non-regulation of emotion by a service provider clearly carries a detrimental impact on the evaluation of service over multiple dimensions and this effect is typically more pronounced when the emotion conveyed is positive following a negative outcome than when the emotion displayed is negative following a positive outcome for the client. Conversely, the regulation of emotion clearly carries a more positive impact on service evaluation factors than the non-regulation of emotion. This finding not only reinforces widely held beliefs and rather indirect findings reported in the emotional labor literature which suggest the importance of emotional labor to service evaluation (e.g., Ashforth & Humphrey, 1993; Parkinson, 1991; Rafaeli,1989a; Rafaeli & Sutton, 1990, 1991) but also generally rejoins much literature which has stressed the social function of emotion and the importance of emotion regulation in interpersonal settings (see Aristotle, 1941; Buck, 1984; Campos & Barrett, 1984; Goleman, 1995; Izard, 1994; Malatesta, 1985; Malatesta & Haviland, 1985; Saarni, 1979, 1982, 1983, 1989; Thompson, 1994 Walden & Smith, 1997).

Emotion regulation was a topic first emphasized by sociologists and later extended by psychologists (see Scherer, 1982a). It appears to be receiving more and more attention in psychology (see Walden & Smith, 1997; Wegner & Pennebaker, 1993). Generally, Salovey

and Mayer (1989-1990) suggest that emotional regulation is an aspect of *emotional intelligence* (see also Goleman, 1995) which involves abilities to monitor and discriminate among one's own and others' feelings and to use this information to guide one's actions and thoughts. *Social intelligence* is presented as a higher-order concept which subsumes the notion of *emotional intelligence*. These constructs appear somewhat analogous to what Buck (1991b) labeled *social* and *emotional competence*. In both cases, emotional regulation emerges as part of a repertoire of social skills.

Furthermore, these results evidently suggest that when subjects evaluated displayed emotion by the service provider, they considered not only the *valence* (or *category*) of the displays but also the *context* in which the emotion was conveyed. At a broader level of analysis, emotions do not emerge here as "things in themselves" (see Doyle McCarthy, 1989) or purely intrapersonal phenomena. Instead, they appear to be both intrapersonal and interpersonal (social) phenomena (see Averill, 1980b; Parkinson, 1996; Zajonc, 1998). The incorporation of social context in our conceptualization clearly imposes an interdisciplinary perspective on emotion in the service encounter. The perspective adopted here is perhaps best qualified as *social psychological* (see Miller & Leary, 1992; Parkinson, 1996). It partly reflects the sociological stance on emotion and more specifically, the most basic tenets of *cultural analysis* which rest on the use of rules and norms in guiding emotional expression (see Kemper, 1991, 1993) as well as those of social constructivism where emotion is investigated within a wider social context (see Averill, 1980a, b, c, 1982, 1984; Hochschild, 1979, 1983a; Kemper, 1981; Mandler, 1990, 1992). It also rejoins recent work in psychology which takes into account the effects of social context on emotion (Buck, 1991a, 1994; Buck et al., 1992; Chovil, 1991; Chovil & Fridlund, 1991; Fridlund, 1991a, b, 1992a, 1994; Fridlund et al., 1990, 1992; Hess et al., 1995; Jakobs et al., 1996, 1997; see also Ekman & Friesen, 1969b) and points to the interpersonal nature of emotion (see Zajonc, 1998).

As such, the perspective adopted here deviates from most if not all empirical work on emotion in the area of marketing (e.g., Edell & Burke, 1987; Havlena & Holbrook, 1986; Holbrook & Batra, 1987a, b; Holbrook & Westwood, 1988; Richins, 1997). Prior studies in marketing which have adopted a purely psychological (intrapersonal) perspective on emotion

have included the oft-cited works of Oliver (see Mano & Oliver, 1993; Oliver, 1993b, 1994, 1996; Westbrook & Oliver, 1991). A purely psychological perspective on emotion is also endorsed and suggested in the form of appraisal theories in Bagozzi et al. (1999). Had we adopted this limiting intrapersonal stance on emotion, social context considerations would have never been included in the study, dramatically different results would have emerged, and different conclusions would have been drawn.

Prior to conducting the battery of analyses of variance with evaluation factors as DVs, measure development and purification was undertaken. The composites which reflected the quality dimensions *reliability* and *empathy* were recaptured from a factor analysis of the performance-only component of SERVQUAL (Parasuranam et al., 1988, 1991). The former was taken to reflect technical service quality whereas the latter was retained as a facet of functional service quality (see Mittal & Lassar, 1998). Two additional multi-item measures of quality were specifically designed to assess the strategic use of emotion by the service provider. The factors were labeled *conveyance* and *responsiveness*. Both boasted respectable factor structures and high levels of internal consistency. The former seemed to reflect more closely the encounter-specific delivery of emotional labor as it is discussed in Hochschild (1983a), the delivery of scripted emotional behavior in the service encounter (see Ashforth & Humphrey, 1993), as well as the delivery of prototypical emotion scripts (see Fischer, 1991). The latter tapped a relational orientation. Next, we addressed the issue of whether service quality was discriminant of satisfaction (see Bitner & Hubbert, 1994; Rust & Oliver, 1994). Confidence intervals for parameter estimates of the correlations among evaluation factors generated via CFA indicated that these constructs may be deemed statistically distinct. However, a fairly high correlation ($r = .80$) between the quality factors *responsiveness* and *conveyance* indicated much overlap between the two constructs. In addition, the effects of the IVs on *responsiveness* were non-significant when *conveyance* was entered as a covariate. It appears that for reasons of redundancy and poor nomological validity, the *responsiveness* dimension contributed little to the present study. However, a new unidimensional and parsimonious measure of *emotional labor quality* labeled *conveyance* emerged from this undertaking.

When the impact of the two IVs on consumer emotion was considered, the main effects of displayed *valence* (or displayed categorical emotion) and *health outcome* consistently emerged as significant (see results for H2b, H2c, H3a, H3b, H4c, and H4d) whereas interactions did not. This finding points to independent contributions of nonverbally expressed emotional *valence* (or emotion *category*) and verbally conveyed *health outcome* to consumer emotion. It was argued that two classes of theories can potentially explain consumer emotion in the service encounter. One is cognitive and has generally been referred to as *appraisal theory* (see Cornelius, 1996; Scherer, 1988b, 1997, 1999). The other is somatic and specifically involves the occurrence of *primitive emotional contagion* (Hatfield et al., 1992a, 1994).

The basic premise of recent appraisal theories is that discrete emotional states are determined and differentiated by the specific ways people interpret or appraise their environments; and consequently, differences in emotion result from differences in appraisal (Ellsworth, 1991; Lazarus, 1968; Parkinson, 1997; Scherer, 1997; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987). Bagozzi et al. (1999) hold that: "appraisals can be deliberative, purposive, and conscious, but also unreflective, automatic, and unconscious, depending on the person and eliciting conditions for emotional arousal" (p.185). However, recent appraisal theories suggest rather high levels of cognitive complexity and hence, attentive (conscious) evaluation especially after the occurrence of unexpected, negative, or personally significant events (see Lazarus, 1991a; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1985a, 1986). This may be inferred from the mental calculus and hence, the cortical processing which is suggested by proposed sets of dimensions of appraisal (Scherer, 1993). In fact, the more complex the evaluation is in appraisal theory frameworks, the greater their ability to explain a discrete emotional state (Scherer, 1988b, 1997, 1999). This, in turn, points to controlled processing (see Schneider et al., 1984) as the mode of cognitive functioning underlying the higher levels of cognitive complexity potentially generated by evaluated occurrences. Controlled processing typically involves attentive perception, evaluative intent, and effortful use of cognitive resources (Kunda, 1999). Furthermore, the frameworks of cognitive appraisal theories appear geared to account for

discrete negative emotional states as reactions to negative occurrences. This is especially evident in appraisal theories based on expectancy disconfirmation (e.g., Burgoon, 1993; Weiner, 1986). For instance, very little mention of positive affective states appears in Weiner (1986) and the process which results in these states remains unspecified and vague.

The notion of evaluated outcome is broad within the framework of appraisal theory. Evaluated outcomes can involve impersonal, personal, and interpersonal events. Weiner (1985a, 1986) discusses a variety of negative or unexpected outcomes that can trigger increasing levels of cognitive complexity and result in a causal attribution of the outcome. Alternatively, Burgoon's (1993) related perspective places the evaluation of the outcome in the realm of interactional and communication factors and thus displays a closer fit with what is suggested in Figure 9. In taking a broader perspective on the notion of *outcome* as in Weiner (1985a, 1986), expectancy violations can occur not only with respect to process-related factors but also in relation to the technical aspects of the job performed by the provider. Accordingly, two forms of outcome can be identified in this study. They involve the two experimental manipulations. Specifically, one rested on evaluations of the provider's *emotional labor* (i.e., appropriateness of emotional displays) and the other, on the evaluation of the health outcome. These categories are fairly consistent with Grönroos' (1990) distinction between technical (outcome-related) and functional (process-related) facets of service quality.

Johnson and Zinkhan (1991; see also Johnson, Zinkhan, & Ayala, 1998) offer a more expanded tripartite categorization of service quality factors which delineates technical *competency* from the actual *outcome* of service (e.g., winning or losing a court case). The third category is represented by the process-related factor *courtesy*. All three categories of service evaluation factors can potentially induce emotion via cognitive appraisal (see Johnson et al., 1998). That process-related or interpersonal factors can induce emotion during interaction via a cognitive appraisal process is also clearly suggested by much literature (see Andersen & Guerrero, 1998; Burgoon, 1993; Burgoon & Walther, 1990; Burgoon et al., 1995, 1996; Metts & Bowers, 1994; Parkinson, 1996). That the actual outcome of service can also result in emotion irrespective of technical competency is also generally suggested by

appraisal theories (Lazarus, 1991a; Smith & Ellsworth, 1985, 1987; Weiner, 1985a, 1986). Findings specific to medical encounters further point to an emotion process based on cognitive appraisal with respect to negative diagnostic information. For instance, Yankeelov, Barbee, Cunningham, and Druen (1995) state that: "[i]ndividuals periodically face the problem of being the recipients of unpleasant news about their health and longevity" (p. 243). They add that: "[s]uch medical diagnostic information may cause people to experience a range of negative emotions" (p. 243).

On the other hand, emotional contagion clearly involves pre-attentive perception and hence, automatic processing (Öhman, 1999; see also Bargh, 1994, 1996, 1997; Schneider et al., 1984). It implies a direct and automatic transfer of emotion from actor to observer or that "other people's emotions can contribute to emotion causation" (Parkinson, 1996, p. 670). The somatic processes of *mimicry* and *feedback* underlie the mechanism of *primitive emotional contagion* (Hatfield et al., 1994). It was argued herein that primitive emotional contagion is more likely to occur in uneventful encounters which should not trigger high levels of cognitive complexity (controlled processing and especially attentive perception) but rather involve synchrony, mutual entrainment, and rapport (see Hatfield et al., 1992a, 1994; Parkinson, 1996). Matched emotional states between actor and observer are typically taken to suggest the occurrence of emotional contagion (Andersen & Guerrero, 1998; Hsee et al., 1990; Levenson, 1996).

A visual comparison of the findings reported in Figures 21 and 22 appears to indicate that emotional contagion as matched emotional states did occur in the least eventful condition 1 where provider happiness was predominantly reflected in the consumer. It seems to also have occurred to a lesser extent in condition 2 where appropriate sadness was conveyed given a negative health outcome. However, the potential appearance of fear as an emotional reaction (see Table 14) indicates that emotional contagion was not the only mechanism to consumer emotion in this condition. A similar situation appeared in condition 3 where sadness and fear appeared to predominate. Generally, the emotions people catch by contagion appear to be "far less intense than those the target feels" (Hatfield et al., 1994, p.196). In addition, emotions induced socially are mixed. McIntosh (1991) argues that: "it

is important to note that the socially induced emotion may not be the entirety of what the observer feels" (p. 17). He adds that: "[i]nasmuch as the observer's situation is necessarily different from the performer's a perfect match in emotion cannot be expected" (p. 17). These observations gathered from past research are clearly reflected in Figures 21 and 22 with respect to the occurrence of emotional contagion in conditions 1, 2, and 3.

On the other hand, condition 4 clearly appeared to entail emotional reactions which resulted predominantly in mismatched emotional states. This led to the conclusion that cognitive complexity was triggered by the rather complete failure in service (happiness expressed while conveying a negative health outcome) and that this resulted in cognitive appraisal rather than emotional contagion as the predominant mechanism to consumer emotion in this condition. In sum, emotional contagion appeared to be the predominant mechanism to consumer emotion in the uneventful condition 1 whereas cognitive appraisal was the likely mechanism to emotion in the most eventful condition 4. The mixed results in conditions 2 and 3 appeared to involve reactions which suggest an emotion process potentially rooted in two concurrent mechanisms. The possibility that two mutually influential mechanisms can underlie emotional reactions in interaction is alluded to in Parkinson (1996) who states that: "[o]ther people's emotions not only represent direct or indirect emotional elicitors, but also help to shape interpretations [appraisals] of the shared situation which in turn may influence emotional reactions to that situation" (p. 669).

Emotion is a multicomponent process (Lang, 1978, Leventhal & Scherer, 1987; Öhman, 1986; Scherer, 1984a). Öhman (1986) argued that three response components which are imperfectly correlated are amenable to measurement (see Figure 7). Measures of these components have been used to assess the occurrence of the processes which underlie emotional contagion either solely or in combination (for facial expressive behavior via EMG, see Dimberg, 1990a; Vaughn & Lanzetta, 1980, 1981; for physiological (ANS) activity, see Levenson, 1996; for the internal feeling state component along with judges' ratings of subjects' facial expressions, see Hatfield et al., 1994; Hsee et al., 1990, 1992, 1993; for sole reliance on self-report assessments of internal feeling states, see Jakobs et al., 1997). Hence, the criteriality that has been used across studies to establish the occurrence of emotional

contagion has been in some instances less stringent than in others (cf. Hsee et al., 1990, 1992; Dimberg, 1990a; Jakobs et al., 1997; Lundquist & Dimberg, 1995; Vaughan & Lanzetta, 1980, 1981).

If we limit criteriality to the occurrence of matched emotional states assessed via paper and pencil measures, emotional contagion is clearly indicated in condition 1 and to a lesser extent in conditions 2 and 3. A more stringent criterion for establishing the occurrence of primitive emotional contagion than the one used here has involved the convergence of self-report assessments with more objective measures such as the ratings of the subjects' facial expressions by trained judges (see Hsee et al., 1990, 1992, 1993). An even more stringent criterion is process-related and has involved direct assessments of the occurrence of mimicry (see Dimberg, 1990a; Lundquist & Dimberg, 1995; Vaughan & Lanzetta, 1980, 1981). Procedures based on facial electromyography (EMG) have for instance allowed researchers to delineate matched emotional states due to *preparedness* from those due to the mechanism of *primitive emotional contagion* (see Dimberg, 1990a; Lundquist & Dimberg, 1995). Levenson (1996) argues that several issues remain unresolved in emotional contagion research. He states that:

> [o]ne of these is the difficulty inherent in distinguishing between emotional *contagion* and emotional *reaction*. We generally think of emotional contagion as meaning that one person's emotions are somehow transmitted directly to another person, who, then has the same emotion. For this reason, when different emotions are experienced by observers than by those they observe, this would not be considered to represent emotional contagion .... Another issue raised ... is the extent to which contagion occurs in different aspects of emotion. If emotional contagion is defined as the observer having the same emotion as the person observed, then, strictly speaking, contagion cannot be established for a given aspect of emotion unless that aspect is measured in both observer and observed. Absent this dual measurement, the extent of sameness of response cannot be determined. (pp. 189-190)

Levenson's (1996) two issues are clearly relevant to this study. With respect to the second issue, dual measurement was used and hence permitted to establish whether matched emotional states had indeed occurred. In essence, the main criterion used for establishing the occurrence of emotional contagion in the present study closely reflected those used in Hsee et al. (1990, 1992, 1993) short of convergence between self-reports and judges' ratings of

subjects' facial expressions. Findings similar to those reported here led Hsee and his associates to repeatedly conclude that emotional contagion does occur in interaction.

In marketing, the conceptual treatment of emotion has involved a focus on the internal feeling state component (e.g., Bagozzi et al., 1999; Edell & Burke, 1987; Havlena & Holbrook, 1986; Holbrook & Batra 1987a, b; Holbrook & Westwood, 1988; Mano & Oliver, 1993; Oliver, 1996; Richins, 1997; Westbrook, 1987; Westbrook & Oliver, 1991). At the operational level, this focus is reflected in the development and use of various categorical and dimensional self-report measures of affect (e.g., Edell & Burke, 1987; Mano & Oliver, 1993; Richins, 1997). In our attempt at demonstrating the occurrence of emotional contagion, we focused on the internal feeling state component with assessments based on the use of categorical intensity scales. An emphasis on this component of consumer emotion allowed a further focus on emotion as an independent variable in service evaluation. However, in regard to Levenson's (1996) first issue, unless one measures the behavioral response component in conjunction with the internal feeling state component of emotion, there is really no way to be certain that the type of contagion posited in Hatfield et al. (1994) has really occurred as opposed to a more cognitively-oriented yet simple evaluation of some service-related outcome. To delineate simple cognitive evaluation from the somatic mechanism of primitive emotional contagion appears impossible without behavioral indicators of changes in the skeleto-muscular structures of the face via an EMG apparatuses during exposure to stimuli. Because we did not engage in such direct assessments, we cannot assert with complete certainty that emotional contagion occurred in condition 1 and to a lesser extent in conditions 2 and 3. Nevertheless, the results are somewhat compelling and do appear to point to matched emotional states and hence, the occurrence of an automatic and direct emotion process in these conditions (especially in condition 1) and of mismatched emotional states and hence, a controlled cognitive process in the most eventful condition 4.

An example of what Levenson (1996) calls *emotional reaction* as an alternate explanation for the occurrence of matched emotional states can be found in Weiner (1986) who argues that positive or negative outcome-dependent affective states emerge after an initial evaluation of an event. These states are likened to diffused mood-states. If the event

is construed as unexpected, important[118], or a failure, Weiner (1986) holds that cognitive complexity is triggered and an attribution process is engaged which then serves to specify a negative outcome-dependent feeling state into a negative attribution-dependent discrete emotional state (see also Russell & McAuley, 1986). Although discussion of the process which leads to diffused outcome-dependent states in Weiner (1986) is minimized, it is fairly certain that Weiner (1986) did not mean to imply the occurrence of primitive emotional contagion but rather the impact of simple judgments on the internal feeling state component of emotion or a non-specific but still cognitively-mediated emotion process. Such a process can somewhat serve to explain the results which we attributed to the occurrence of emotional contagion in the uneventful condition 1 where a matched emotional state predominantly appeared. Quite similarly to Weiner (1986), Smith and Ellsworth (1985, 1987) suggest that an evaluation based on valence (positive or negative) is insufficient to account for a discrete emotional state and that an evaluation which engages additional dimensions of appraisal is needed to determine such a state (see also Keltner et al., 1993).

Just as the emotional reaction in condition 1 of Figure 21 that was attributed here to primitive emotional contagion can be somewhat explained within the general framework of appraisal theories which suggest that some form of simple or complex cognition mediates emotion, the emotional reaction in condition 4 which was attributed to cognitive appraisal can be explained within the framework of emotional contagion. The display of emotion by the provider in condition 4 (positive emotion given a negative health outcome) can be viewed as denigrating, devoid of any sympathy, compassion, and empathy, as well as sadistic. It may have resulted in a counter-empathic reaction. This is suggested by the predominance of anger and disgust in subjects' ratings of felt emotion in condition 4 (see Figure 21). Counter-empathic reactions involve an incongruent emotional response to an affective stimulus or "discordance between the model's and observer's emotional responses" (Englis et al., 1982, p. 376). They generally imply the intervention of some form of cognition as a disruption of

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[118] The notion of personal significance arises in many appraisal theories (e.g., Lazarus, 1991a; Scherer, 1984a, 1988c, 1993; Smith & Lazarus, 1993). The major difference among appraisal theories rests in the sets of appraisal dimensions that have been proposed (see Scherer, 1988b, 1997, 1999).

the process which normally results in matched emotional states and instead leads to complementarity rather than reciprocity in emotion. Parkinson (1996) suggests that counter-empathic responses in one person involve a reaction by that person to the appraisal endorsed by the other person. He adds that:

> it is possible to return love with hate, or even hate with love ... the other person's expression of a particular emotion endorses an appraisal of a significant object in the shared social environment that you feel impelled to contest .... Thus, it is not simply the fact that emotional reactions tend to be related to important things that leads us to be attentive to other people's emotions. More accurately, emotions have particular social meanings which contain evaluative attitudes towards intentional objects, and these evaluative attitudes may be accepted or rejected by the other people involved .... The implication of this analysis is that one of the direct interpersonal effects of emotion depends on the fact that emotions contain appraisals ..., so that expression of the emotion becomes a public presentation of the evaluation and interpretation implied by that appraisal. (pp. 671-672).

The instigation of counter-empathic responses has been related to negative attitudes (antecedent liking or disliking) (e.g., James, 1890; McHugo et al., 1991; Zillmann & Cantor, 1977); competitive vs. cooperative situations (e.g., Lanzetta & Englis, 1989); reward-punishment structures (Aderman & Unterberger, 1977); and asymmetry/incongruency between expressed emotion by an actor and an outcome for the observer (e.g., actor smiles at the misfortune of the observer) (Englis et al., 1982). Clearly, the research reported in Englis et al. (1982) suggests the possibility of such a response in the current study. Furthermore, Parkinson (1996) proposes that such responses may involve the mechanism of primitive emotional contagion. He states that:

> Research in mutual entrainment of interactive non-verbal responses suggests that we automatically attain synchronized rhythms in our conversation with others (e.g. Bernieri, Reznick, & Rosenthal, 1988). To the extent that emotional meanings are contained in the patterns of posture and gesture that unfold in this way, there is little need for any explicit decoding process to feed into the behaviour control system. Synchrony is established between people automatically and the emotional information may be directly read off the available dynamic perceptual information .... Relatedly, Hatfield, Cacioppo, & Rapson (1992[a]) suggested a way in which emotion might be communicated without specific interpretation of transmitted signals. They argued that in certain social situations, expressive behaviours are mimicked automatically ..., and the copied response may directly contribute to the self-perception of emotion via facial and bodily feedback (e.g. Laird & Bresler,

> 1992). If this analysis is correct, there will be an automatic tendency to catch the mood of the person with whom you are interacting. Similarly, if the interaction is antagonistic rather than affiliative it may be that contrasting or corresponding emotions occur in the two parties not because nonverbal actions are matched but because they tend to elicit oppositional kinds of response in the other. The process whereby emotion is transmitted and responded to may be analogous to that suggested by Hatfield and her colleagues in these cases too .... Another's emotional reactions may encourage complementarity as well as similar evaluations of the social situation (p. 668)

Communication research provides indications as to whether an induced emotional state will result in complementarity or reciprocity. Capella (1981) suggests that reciprocity (matching of emotion) or complementarity of intimate gestures may occur based on what is expected and how much intimacy is preferred. He states that: "[w]hen the other's behavior is outside the expected range, compensation results; when it is in the expected range, matching results" (p. 112). He adds that: "[i]ncreasing proximity by one member of the dyad seems to lead the other to reintroduce normal social distances, to gaze less, to adopt less direct body gestures, to move more, to have faster reactions, to leave or to compensate, and in general to speak less" (p. 111). Alternatively, when one behaves appropriately, matching is said to result (e.g., smiling and standing closer to appropriately warm people). Inappropriate emotional behavior may thus impede the functioning of the pre-attentive processes (synchrony and feedback) which underlie primitive emotional contagion via an increase in cognitive complexity as a conscious appraisal of the situation triggered by some impropriety or failure in etiquette or compliance with social norms.

Rather simplistically, the issue of whether an emotional reaction can be attributed to some form of cognitive appraisal varying in cognitive complexity or to primitive emotional contagion may appear to hinge on what constitutes cognition. Lazarus (1981, 1984a, b, 1991a) clearly takes a broad perspective and suggests that simple pre-attentive judgments lie within the realm of the cognitive. A similar position appears in Arnold (1960) where appraisals can include *sense judgments* or as "direct, immediate, nonreflective, nonintellectual, [and] automatic" (p.174). Such appraisals are considered pre-attentive in that they occur outside of awareness (Öhman, 1999). On the other hand, Zajonc (1980, 1984) equates cognitive processes to the functioning of a computer and therefore argues that simple

perceptual judgments do not engage cognition *per se* but rather result in a visceral type of judgment. This type of pre-attentive (unconscious) perception presumably underlies primitive emotional contagion (see Hatfield et al., 1994) and perhaps the unspecified process which is apparently low in cognitive complexity and leads to outcome-dependent affective states in Weiner (1986). If so, a discriminating factor between the mechanisms of cognitive appraisal and emotional contagion is not whether perception is attentive or pre-attentive. In other words, whether a broad definition of cognition is adopted and cognition is therefore taken to include pre-attentive (unconscious) perception or whether a more restrictive definition is espoused which excludes pre-attentive perception from what represents the cognitive is in fact irrelevant in attempts at differentiating emotion induced via emotional contagion from that which stems from cognitive appraisal. In fact, the issue of importance is whether matched emotional states in interaction are due to a somatic mechanism which involves pre-attentive evaluation or to a purely cognitive process with no somatic component but which initially may also be based on a pre-attentive evaluation which through cognitive complexity can reach a level of processing in evaluation typically associated with controlled functioning and thus become effortful, intended, and attentive.

From methodological and measurement perspectives, Figures 21 and 22 reveal in part what is wrong with categorical scales of emotion. Subjects were asked to categorize their emotional state with respect to six basic emotion categories. These categories are semantic in that they involve labels (Scherer, 1993). It appears difficult to sometimes label an internal feeling state and it is highly improbable that multiple basic emotional states are felt concurrently in a subject (Ellsworth, 1991). In conditions 2, 3, and 4, it is more probable that subjects generally felt a negative emotion and then tried to relate it to one or more of the provided semantic categories as best they could (see Russell, 1993). It is also possible that demand characteristics or artefacts (see Sawyer, 1975) may have impelled subjects to indicate the emotion(s) one would normally feel in these circumstances rather than truly felt emotion(s). On the other hand, these and other similar scales are the only way of assessing the internal feeling state component of discrete emotion via self-report short of adopting a dimensional perspective (see Russell, 1979, 1980; see also Mano, 1991). Had a dimensional

perspective been adopted in the emotional contagion component of the study, this would have led to a rather difficult interpretation of results with respect to the occurrence of the phenomenon across experimental conditions due to a lack of specificity. A useful discussion of emotional response categorization appears in Niedenthal, Halberstadt, and Innes-Ker (1999).

Nevertheless, a broader dimensional approach was justifiably used for SEM. This not only reflected recent findings on the facial feedback hypothesis (see McIntosh, 1996; Winton, 1986) but also enabled a parsimonious specification of consumer emotion. A categorical approach would have resulted in the specification of one latent construct and a corresponding measure per category of discrete emotion included in a model. To fully account for the (M)ANOVA results presented in Tables 14 and 16, multiple discrete categories would have been required. In addition, the use of a dimensional categorization based on valence did not necessitate the specification of multiple antecedent dimensions of appraisal because typically two to five (or more) dimensions are used to explain a discrete emotional state in various appraisal theories (cf. Roseman, 1991; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987; Smith & Lazarus, 1993; Weiner, 1986). On the other hand, the determination of emotional valence does not require such complexity (see Smith & Ellsworth, 1985, 1987; see also Keltner et al., 1993; Weiner, 1986).

LISREL estimation of the model which appears in Figure 31 suggested not only that emotion is not induced after failure in emotional labor but also that emotion plays no part in the sequence of evaluation factors (see Table 40). On the other hand, results reported above with respect to hypothesis tests via analyses of variance demonstrated that negative emotion was indeed induced in conditions 3 and 4. In particular, the appearance of anger and disgust in condition 4 (see Figure 21 and Tables 14 and 16) suggested that this combination of experimental manipulations resulted in unique and mismatched affective states relative to the other conditions. The inability of the structural equation model to account for emotion and a rather complex cognitive emotion process in a situation which should predictably trigger such a process was most likely due to the choice of appraisal dimensions (*conveyance* or *appropriateness*). In particular, *appropriateness* as a *comparison to standards* was the

dimension which accounted for the least variance in emotion in Scherer and Ceschi (1997). Despite its direct relevance to emotional labor and its conceptual appeal which stems largely from the tenets of cultural analysis in sociology, other dimensions of appraisal (see Scherer, 1988b) may have been better suited at explaining the generation of emotion in such eventful encounters. Dimensions related to *personal significance* (see Lazarus, 1991a; Parkinson, 1996; Smith & Lazarus, 1993) are likely candidates for future studies.

In taking a functional perspective, many have suggested that emotions suggest response tendencies. In other words, they urge a person to action but they do not necessarily compel a person to behave in a particular manner (Ekman, 1984; Fridja, 1986, 1987, 1988, 1993; Gross & John, 1997; Plutchik, 1980b; Zajonc, 1998). The ineffective choice of appraisal dimensions may also explain why the proposed relation between valence and consumer behavioral intention was not significant. Again, the inclusion of an appraisal dimension reflecting personal significance may have perhaps facilitated the validation of the proposed relationships in Figure 31.

Nevertheless, the sequence of evaluation factors which emerged from estimation is consistent with that proposed in Cronin and Taylor (1992): *service quality -> satisfaction -> behavioral intention*. As suggested in Chapter Eight, this sequence mirrors the general sequence proposed in appraisal theories of emotion (*cognition -> emotion*). However, contrary to what is suggested in Westbrook and Oliver (1991), consumer emotion (valence) does not significantly contribute to consumer satisfaction. Rather, satisfaction has a cognitive antecedent (see Oliver, 1993b, 1994, 1996). In sum, the underlying mechanism of evaluation in eventful encounters appears to rest purely (or greatly) in the realm of the cognitive rather than the affective. It is indeed tempting to argue that (dis)satisfaction during eventful encounters represents a cognitive reaction. However, if we hold to the general framework of appraisal theories of emotion, it is tenable to posit that satisfaction may represent an affective consequence of evaluation on a service quality dimension. If so, satisfaction would emerge as an affect laden state with cognitive antecedents.

Estimation of the model in Figure 32 revealed a different web of relations between constructs (see Table 42). In particular, it appears that socially-induced affect plays a

significant role in the evaluation of uneventful encounters characterized by no failure in emotional labor. The occurrence of matched emotional states in interaction appears to lead to mutual entrainment and rapport (Hatfield et al., 1992a, 1994; Parkinson, 1996). The *valence* of the socially-induced affective state has an impact on *satisfaction* ($\gamma_{1,1}$) which, in turn, determines *behavioral intention* (β_{31}). The work of Westbrook and Oliver (1991; see also Westbrook, 1987), where the affective antecedents of satisfaction are discussed, appears substantiated by this model. From a functionalist perspective on emotion where emotion is seen as a phenomenon which suggests particular responses and actions (be they expressive or intrumental) (see Ekman, 1984; Fridja, 1986, 1987, 1988, 1993; Gross & John, 1997; Plutchik., 1980b; Zajonc, 1998), *satisfaction* emerges here as a mediator (see Baron & Kenny, 1986) of the proposed link between *emotion* and *behavioral intent* suggested by many emotion theorists. In sum, the significant relationships which emerged in the estimated model suggest that uneventful service encounters generally lead to an affect-laden evaluation process and more specifically, to affect as an antecedent to satisfaction.

Various proposed relationships were non-significant in this model. For instance, the suggestion that a simple cognition in the form of a spontaneous trait inference (i.e., emotional expressivity) will emerge during interaction and that this trait inference will be imbedded within a sequence of service evaluation factors was disconfirmed. Furthermore, that affect will color this inference was also disconfirmed. The general sequence of *affect -> cognition* is indicated by much research in psychology. These findings suggest that affective states can color cognitive processes which include evaluation or judgment (see Forgas, 1995, 1999; Isen, 1987, 1999). Isen (1984, 1985, 1987, 1990, 1999) points to an asymmetry in the effects of positive and negative affective states on a variety of outcome variables. This may have occurred here in that condition 1 involved the displays of a positive affective state whereas condition 2 was based on negative displays. Hence, in condition 1, a positive affective state was induced in subjects whereas a negative affective state resulted in subjects in condition 2. Pooling together these subjects for LISREL analysis may have complicated things substantially because this procedure presumed inverse effects of induced positive and negative affect on cognition. Isen (1999) argues that:

> one cannot assume that negative affect will have the inverse effect of positive feelings .... Sometimes people assume that the opposite of what is true of positive affect will hold true for negative feeling states. The research literature on the influence of affect, however, indicates that positive and negative feelings are not usually symmetrical or parallel in their effects. This is true of their impacts on both social behavior and cognition .... There are many reasons for this. First the structure of negative and positive affect is not similar. For example, one can immediately think of three distinct basic affects that are usually considered negative (anger, fear and sadness), but only one that is positive (joy). Even beyond that, however, the research indicates that the cognitive structures associated with negative and positive material, as well as with positive and negative feelings, are quite different (p. 524)

Finally, the interpretation of the results obtained after estimation of the models which appear in Figures 31 and 32 can perhaps be attempted along the lines of the involvement construct (Branscombe, 1988; Laurent & Kapfer, 1985; Zaichkowsky, 1985). Higher involvement is related to an elaboration of information whereas lower involvement is associated with the effects of peripheral factors in judgment (Petty & Cacioppo, 1984). Primitive emotional contagion can be taken to represent a low cognitive involvement emotion process if certain aspects which underlie automaticity also underlie low involvement. On the other hand, appraisal theories of emotion can be taken to reflect higher levels of cognitive involvement if elements which underlie controlled processing overlap with high involvement processes.

CHAPTER 11

CONCLUSION

11.1 General Conclusions

The importance of *service* to the economies of the developed world is primordial. For instance, the proportion of the labor force engaged in the services sector in 1988 was 74% in the US and 61% across Europe (Gummesson, 1991). Market realities involve local and international competition, slower growth rates, and mature market structures (Fornell, 1992). Bitner et al. (1990) have suggested that service quality is generally perceived to be declining in the U. S. and that "the observable symptom is decreasing quality in what has been termed the 'service encounter,' or the moment of interaction between the customer and the firm" (p. 71). Service evaluation factors have been presented as dimensions of differentiation (e.g., Barrell, 1991; Berry, 1994; Bitner et al., 1990; Hochschild, 1983a; Mittal & Lassar, 1996; Mohr & Bitner, 1995a, b; Parasuranam et al., 1988, 1991; Oliver, 1996; Rust & Oliver, 1994; Zeithaml et al., 1996; Zeithaml & Bitner, 1996). Consequently, proper service delivery appears to carry clear implications on the financial status of firms (Bitner et al., 1990; Mittal & Lassar, 1998; Zeithaml & Bitner, 1996).

The role of social, interpersonal, and relational factors in determining positive service evaluation has long been recognized (e.g., Bowen & Schneider, 1988; Crosby et al., 1990; Goodwin & Gremler, 1996; Grönroos, 1990; Iacobucci et al., 1994; Kelley & Hoffman, 1997; Lovelock, 1981; Luthans & Waldersee, 1991; Price, Arnould, & Deibler, 1995; Shostack, 1977; Solomon et al., 1985). Buyer-seller interactions during the service encounter are said to have a critical impact on customer-perceived service quality (Bitner et al., 1994; Crosby et al., 1990), level of felt satisfaction with the service (Czepiel, 1980; Oliver, 1996; Spreng & Mackoy, 1996), and the behavioral intentions of customers towards firms (Boulding et al., 1993; Zeithaml et al., 1996).

The process of delivering service involves the enactment of a wide range of behaviors (Solomon et al., 1985). Many high-contact occupations involve service encounters which are not merely based on exchange (Goodwin & Gremler, 1996; Goodwin & Radford, 1993) but are rather characterized by behaviors which are typically associated with communal norms

(see Clark & Mills, 1993). These behaviors include expressions of closeness, friendliness, caring, sympathy, and empathy (Bitner et al., 1990; Zeithaml & Bitner, 1996). Hence, emotional displays underlie the behavioral repertoires of service agents (Dobni, Zerbe, & Ritchie, 1997; Goleman, 1995; Rafaeli & Sutton, 1987, 1989, 1990, 1991).

Front-line employees are often asked to perform emotional labor (Ashforth & Humphrey, 1993; Hochschild, 1983a) or to engage in the strategic use of emotion on the job (Parkinson, 1997). In this perspective, workers' feelings have been presented as organizational capital and as a potential form of competitive advantage (Hochschild, 1983a; Rafaeli, 1993). Literature in management clearly points to a link between emotional labor and service evaluation (Ashforth & Humphrey, 1993; Hochschild, 1983a; Mars & Nicod, 1984; Parkinson, 1991; Rafaeli & Sutton, 1987, 1989, 1990, 1991). This link is also clearly reflected in the widely held beliefs of many practitioners. For instance, Hochschild (1983a) provides an example of a sticker that is placed on the computer terminals of TWA and thus serves as a constant reminder to service agents of what their job partly entails. This sticker says: "When people like you, they like TWA too" (p. 186). Employees are therefore expected to adjust their emotions to serve the organization and its goals (Hochschild, 1983a). This is also evident at Disney (see Tyler & Nathan, 1985) where many of Hochschild's (1983a) observations apply. However, the relation between emotional labor and service evaluation has essentially remained anecdotal and speculative because it has not been demonstrated empirically in a formal and systematic fashion.

The essential assertion of this work was that service providers' emotional displays carry an impact on the evaluation of services. At a very basic level, this dissertation represents a bridging of the gap between the work in management on emotional labor and the services evaluation literature in marketing. It was also suggested that provider displays generate emotion in the service provider and that this emotion is subsequently involved in the evaluation process. At the conceptual and theoretical levels, Chapter Six represents the most important contribution of this dissertation. Its production involved much integration and synthesis of a multidisciplinary pool of literature on emotion. Initially, we took our lead from Hochschild (1979, 1983a) and attempted to account for the impact of provider

emotional displays on consumer emotion within her proposed framework. It quickly became apparent that the elements of Hochschild's (1983a) *interactional theory* were limiting in this respect. In a way, the interactional aspect of this theory needed to be augmented to accommodate the consumer and his/her emotion process.

In showing how the emotion system which underlies the service encounter operates, we turned to many perspectives. Our search for meaning and explanation quickly led to the realization that many distinct and yet relevant discourses would need to be addressed and potentially combined and integrated to form a coherent and sufficient whole. Accordingly, we drew on literatures in sociology, psychology, management, marketing, and communication studies to construct a model of the *emotion system of the service encounter*. The dialectics of the framework which was elaborated involve multiple levels (intrapersonal, interpersonal, and social) and dynamic feedback loops which render it truly interactional. The proposed model generally addresses Rafaeli and Sutton's (1989) claim that: "better theory and research are needed to help us understand the consequences, as well as the causes, of the emotions expressed by organization members" (p. 3). Thus, the model tackles the need for theoretical issues in a fairly exhaustive and conceptually grounded fashion.

The more prevalent conception people have of emotions is that they are essentially internal and private phenomena (Miller & Leary, 1992; Parkinson, 1996). This view is reflected in the purist psychological perspective on emotion which is essentially person-centered (Doyle McCarthy, 1989; Graham et al., 1981; Miller & Leary, 1992). This view also prevails in the treatment of emotion in the area of marketing (e.g., Bagozzi et al., 1999; Batra & Holbrook, 1990; Edell & Burke, 1987; Havlena & Holbrook, 1986; Holbrook & Batra, 1987a, b; Mano & Oliver, 1993; Richins, 1997; Westbrook, 1987; Westbrook & Oliver, 1991) and is insufficient to account for emotion at the interpersonal level (Miller & Leary, 1992; Parkinson, 1996; Zajonc, 1998).

Alternatively, the sociological perspective presents emotion as enmeshed within social factors which include interpersonal, institutional, and cultural aspects of the social fabric (Coulter, 1986; Kemper, 1991, 1993). The management literature on emotional labor heavily reflects this sociological perspective (e.g., Mars & Nicod, 1984; Rafaeli, 1989a, b;

Rafaeli & Sutton, 1987, 1989, 1990; Parkinson, 1991; Wharton, 1993). However, purist sociological accounts make no assumption about whether emotion is truly felt rather than simply displayed (Goffman, 1959, 1967; Zurcher, 1982, 1985). In the area of marketing, there is a strong implicit assumption that emotions are indeed felt (see Bagozzi et al., 1999) and that feelings carry an impact on other factors (e.g., Westbrook & Oliver, 1991). Hence, the sociological perspective is also insufficient to fully account for both provider and consumer emotion processes during the service encounter.

As a whole, the field of emotion is heading toward interdisciplinary. Among those involved in research in this field, some psychologists (e.g., Biehl et al., 1997; Buck et al., 1992; Chovil, 1991; Fridlund, 1990, 1991b, 1992a, b, 1994; Hess et al., 1995; Jakobs et al., 1996, 1997; Jones et al., 1991; Miller & Leary, 1992; Parkinson, 1996; Zajonc, 1998), some sociologists (e.g., Kemper, 1991, 1993), and most social constructivists (e.g., Averill, 1980a, b, c, 1982, 1985; Harré, 1986; Hochschild, 1983a; Mandler, 1990, 1992) have repeatedly argued that a complete theory or account of emotion must not only accommodate intrapersonal processes (e.g., cognitive appraisals, autonomic responses, etc.) but also the social, and/or cultural, and/or interpersonal processes that evoke or regulate the experience and/or expression of emotion in particular social, cultural, or interpersonal settings. Accordingly, Kemper (1991) states that "there are no emotions that are purely internal or context free ... hence there are no emotions not rooted in a historically specific environment as a functional adaptation to it, as a beneficial or noxious response to it" (p. 303). We have attempted here to provide an interdisciplinary account of emotion which is partially rooted in psychology and partially in sociology but also one that acknowledges the communication function of emotion (see Andersen & Guerrero, 1998; Buck, 1984, 1988b, 1991b; Metts & Bowers, 1994; Parkinson, 1996). This emerging perspective on emotion is functional (see Cornelius, 1996) and is perhaps best qualified as *social psychological* (see Miller & Leary, 1992; Parkinson, 1995, 1996).

The proposed model of the *emotion system of the service encounter* appears especially well positioned as a conceptualization and extension of Hochschild's (1983a) interactional theory of emotion. Many refinements emerge. For instance, allusion to an

obscure Freudian signal function in emotion regulation is avoided and replaced with one based on self-perception (see Laird & Bresler, 1992). Unlike in Hochschild (1983a), the model formally and explicitly considers the target of provider displays: the consumer. Hence, the proposed model is truly interactional and interpersonal. Moreover, the model conceptualizes the different streams of emotional displays discussed in Hochschild (1983a). The streams of emotional displays are shown not to only include emotional labor-based expressions but also two streams based on unaltered (unregulated) emotion. Four more or less conceptually discriminant categories of displays emerge.

An additional and important enhancement with respect to Hochschild's (1983a) stance on the provider emotion process rests in presenting emotion as a multicomponent process (Averill, 1980a, b, c; Scherer, 1984a). Hochschild (1983a) focuses on internal regulation and assumes a one-to-one correspondence between the internal feeling state and expressive components of emotion. In reality, these components are not perfectly correlated and thus represent different measurable aspects of emotion (see Dimberg, 1990a; Lang, 1978, 1988; Leventhal & Scherer, 1987; Parrott & Hertel, 1999). This issue along with the bidirectionality in relations among components of emotion (see Zajonc, 1998) are both clearly acknowledged in the model.

Furthermore, the proposed model suggests that the salience of components varies between the provider and consumer. With respect to the provider, social determinants of internal feeling states and expressive behaviors are stressed as in Hochschild (1983a). Specifically, the impact of social factors on emotion regulation emerges as perhaps the most important aspect of the provider's emotion process. However, with respect to the consumer, the roles of social and regulatory influences appear less important and less intentional. This reflects the consumer's *free actor status* in the service encounter (see Bowen & Schneider, 1988).

From a management perspective, an important contribution of the proposed model involves the specification of differing forms of feedback from consumer to service provider. Lazarus (1991a) argued that both cognitive and emotional information are critical for making sensible decisions. He states that: "[a]n emotion may also be informative to the person who

experiences it ... that is, a source of insight into oneself and what is happening" (p. 18). He adds that:

> [w]hen we react with anxiety, anger, happiness, or whatever, there is usually awareness and understanding of how emotion was precipitated as well as of the emotional reaction. We realize immediately, or later after reflection, that we are angry because someone has behaved toward us in a hostile, critical, or unresponsive way, or that we are anxious because the situations threatens us and we are vulnerable .... There are also occasions in which a person is not aware of making an appraisal of harm or threat ... either because the social relationship is ambiguous or because the person is engaging in ego defense. We may not even be aware that we are reacting emotionally because we have misinterpreted our reaction or the conditions bringing it about .... (p. 18)

Research on emotional contagion implies still another source of *affect as information*. It is largely based on empathy (Levenson, 1996) and suggests that one can access the feelings of another by monitoring one's own feelings. In this perspective, emotion emerges as a truly interpersonal construct (see Parkinson, 1996). Hatfield et al. (1994) hold that:

> [c]onscious analytic skills can help us figure out what makes other people 'tick'; but if we pay careful attention to the emotions we experience in the company of others, we may well gain an extra edge into 'feeling ourselves into' the emotional states of others. What we think and what we feel may provide valuable yet different information about others ... social interactions are complex. We may believe we guide ourselves through our daily treks, but a moment's reflection shows we neither proceed alone nor have as much control as we might have thought over others or our interactions with them .... However, once individuals begin to relax and stop monitoring consciously every move they are making, primitive emotional contagion is able to work its magic. (p. 190)

From the perspectives of consumer behavior and services marketing, an important contribution of the proposed model rests in the specification of three distinct consumer emotion processes of which two (primitive emotional contagion and preparedness) are based on somatic processes and the third on a cognitive perspective. The cognitive emotion process involves conscious processing whereas the latter two are likely to be based on simple pre-attentive perception and are thus potentially unconscious in their perceptual antecedents. Accordingly, two different levels of information processing are proposed in the model. The delivery of potentially unexpected emotional displays such as those which stem from surface acting or affective deviance predictably invites increased cognitive complexity and may

consequently trigger a complex appraisal process (see Weiner, 1985a, 1986) which can arguably involve controlled information processing (see Scherer, 1993; Schneider et al., 1984). On the other hand, a smooth or uneventful service encounter based on rapport, spontaneity, and mutual entrainment appears to rest on the mechanism of primitive emotional contagion (Hatfield et al., 1994). To increase the likelihood of such an encounter, the model suggests the use of appropriate and spontaneous emotional displays by service providers (i.e., displays which stem from deep acting or displays which are appropriate but unregulated).

The incorporation of a consumer emotion process based on emotional contagion in the model clearly provides a new source of emotional reaction in the service encounter not yet investigated in the services evaluation literature. Furthermore, it provides a clear mechanism which can account for positive emotion in the service encounter. On the other hand, cognitive appraisal theories do not. They tend to focus on discrete negative emotion categories and their cognitive determinants (see Lazarus, 1991a; Roseman, 1984, 1991; Scherer & Ceschi, 1997; Smith & Ellsworth, 1985, 1987; Weiner, 1985a, 1986).

Underlying the concept of well delivered service is often that of "service with a smile" (Rafaeli & Sutton, 1987, 1989, 1990). That smile seems to carry many implications with respect to how a service is evaluated. However, it is not the only consideration. Results reported above clearly indicate that valence (or categorical emotion) alone cannot adequately account for the impact of displayed emotion on various evaluation factors. Specifically, the interaction of the valence of displayed emotion and the context in which the emotion is expressed emerges as primordial. Hence, social context represents a moderator of the relation between valence of displayed emotion and judgments of appropriateness of the emotion conveyed, the relation between valence and attributions made with respect to emotional behavior, as well as of various relations between valence and specific service evaluation factors which include: (a) aspects of functional (process-related) service quality, (b) satisfaction, and (c) behavioral intentions.

These findings clearly suggest that the adoption of a social psychological perspective on emotion in the service encounter is desirable in that it augments explanatory power and truly reflects the interpersonal nature of the service encounter. The social context dimension

is rooted in cultural analysis (see Kemper, 1991, 1993) and provides a frame of reference against which the normative nature of expressed emotion can be judged. Its exclusion from the traditional person-centered perspective on emotion in marketing indicates that suggested perspectives on emotion in this area cannot adequately accommodate the study of emotion in interaction and across differing consumption situations.

The issue of emotion has often been ducked in consumer behavior in general and in the services marketing literature in particular (e.g., Bitner, 1990). Given the fact that there is no consensual definition of emotion (Averill, 1980a, b; Oatley & Jenkins, 1992; Mandler, 1992; Parkinson, 1987; Zajonc, 1998), this is perhaps a respectable act of cowardice. Panksepp (1982) states in relation to work in psychology that the "semantic controversies that routinely arise in the discussion of emotion have hindered the progress of research in this area" (p. 452). Clearly, this has also hindered conceptual and theoretical work in the area of services evaluation. Addressing affect in our conceptualizations of consumer behavior often appears like a shot in the dark. To some extent, it is just that. The various and often disparate core perspectives on emotion addressed in Chapters One and Two are confusing in that they are based on different assumptions and different ways of conducting research. They also involve differing emphases on the functions of emotion and its different components. In fact, the many perspectives rarely result in convergence with respect to what is an emotion. In providing a rather full literature review of core perspectives on emotion, we began with naiveté rather than with a bias toward a particular perspective. In studying this literature one often encounters counter-intuitive notions such as the Jamesian feedback hypothesis or the level of abstraction in purist sociological perspectives which do not presume that emotions are felt. This may be another reason why emotion has not been fully addressed in marketing.

As consumer behaviorists, we rely especially on psychology to provide conceptualizations, frameworks, and operationalizations that can be adapted to consumption settings (for example, see Bagozzi et al., 1999). Hence, another reason why emotion has been avoided in marketing is due to our dependence on academic/experimental psychology which for a long time was itself cognitively driven and emphasized conscious processes (Öhman, 1999). For instance, James (1890) stated that:

> [t]he distinction between the unconscious and the conscious being of the mental state .... is the sovereign means for believing what one likes in psychology, and of turning what might become a science into a tumbling-ground for whimsies. (p. 163)

The common-sense and widely-held skepticism to the idea that some mental processes may be unconscious (for example, see Clore, 1994) "has proven remarkably resistant to the influence of 100 years of psychoanalytic thought" (Öhman, 1999, p. 322). Taylor (1998) argues that:

> [t]he cognitive revolution appeared at the doorstep of social psychology at a receptive moment. There was general dissatisfaction, not only with consistency approaches but with motivationally based theories more generally. Occam's razor had sliced its way through the field, leaving behind a preference for simple, mid-range theories that could be demonstrated and tested. The field was ready for a new metatheoretical vision and a different way of thinking about the social being. Cognitive psychology provided such a vision .... That the vision of the rational person should assume such prominence in social psychology is not surprising. It was a vision shared by many of the other social sciences. (p. 70).

In this cognitive perspective, if you want to know why a person behaved in a particular manner, all you have to do is ask them and rely on their response. However, clearly many aspects of human functioning, be they aspects of cognition or emotion, lie outside of awareness and tend to involve automatic rather than controlled processing (Bargh, 1992, 1994, 1996, 1997; Dimberg, 1990a; Gilbert, 1989; Gray, 1999; Jacoby et al., 1997; Kihlstrom, 1987; Merikle, 1992; Öhman, 1999; Power & Brewin, 1991; Schneider et al., 1984; Spielman et al., 1988; Wegner & Bargh, 1998; Winter et al., 1995; Zajonc, 1980). Facial mimicry represents such a process and can only be effectively addressed through objective measurement methods rather than self-report (see Dimberg, 1990a).

The cognitive revolution has quite obviously had a carry-over effect that is visible to this day in related areas of inquiry such as consumer behavior and services marketing. It is not surprising that affect has been treated in consumer behavior much in the same way as it was by cognitive psychologists: it was perceived as "an embarrassment" and "usually left out in the cold" (Gray, 1999, p. 84). This is confirmed in Cohen and Areni (1991) where it is stated that: "[a]ffect has frequently been assigned a subordinate role - for example, as a functional aspect of goal-directed behavior and performance feedback (hence blended into

conation) or as a component of evaluation (hence blended into cognition)" (p. 189). They add that: "[o]ften it was simply ignored or its disruptive influence on more orderly cognitive influence minimized" (p. 189). Consequently, much research is still required to establish the role of affect in the evaluation of services (Bagozzi et al., 1999; Oliver, 1994, 1996). Furthermore, frameworks designed to explicate consumer behavior processes have tended to be described in terms of cognitive constructs whose operationalizations presume conscious evaluation on the part of the respondent. This is especially evident in the second phase of service quality research where operational models such as SERVQUAL presumed not only elaborate and complex cognitive evaluations but also implicitly suggested that these computations were conscious (for a review of mathematical forms of competing models, see Taylor, 1995). Another relevant example to the present work rests in attempts at conceptualizing and operationalizing *satisfaction* as well as relating this construct to emotion (for a review, see Oliver, 1996). It is quite obvious that attempts at explaining satisfaction have involved "blending" affect onto excessively cognitive frameworks (see Cohen & Areni, 1991).

This dissertation is not only atypical of much past and current work in marketing and psychology with respect to its level of discourse on emotion but also with respect to how emotion is treated in relation to cognition. Specifically, we have tried to avoid the type of "blending" Cohen and Areni (1991) are so critical of. The essential building block of the model of the *emotion system of the service encounter* was not cognition but affect, and more precisely, emotion. Many of the model's components involve emphasis on somatic processes. Hence, the proposed model appears to invite less criticisms of excessive cognitivism which surround theories of emotion that are purely cognitive in their antecedents (see Scherer, 1993).

Its emotional contagion (Hatfield et al., 1994) component endows the model with a truly dynamic quality which can account for matched emotional states, mutual entrainment, and rapport (Parkinson, 1996) during the service encounter. Had we adopted a perspective on emotion based solely on appraisal theories (see Bagozzi et al., 1999), the capacity to address positive emotional reactions in the service encounter would have been tremendously

reduced because these models provide a focus on negative emotional states. As a form of empathy (see Levenson, 1996), emotional contagion also implies a more direct information function of emotion than that suggested by more cognitively-laden perspectives (cf. Buck, 1991b). As in the case of emotional labor, the access to the emotional states of consumers may arguably also represent an organizational capital. The key to this form of information for frontline employees is provided via the mechanism of emotional contagion (see Hatfield et al., 1994) and another purportedly based on self-perception (see Laird & Bresler, 1992).

An important finding reported here is the occurrence of consumer emotional contagion in the service encounter. The criteria that were used to demonstrate this occurrence reflect those in various studies conducted by Hatfield and her associates (e.g., Hsee et al., 1990, 1992, 1993) with one exception: the assessment of the behavioral component of emotion was not undertaken. The component of emotion on which we focused our efforts was the phenomenological typically referred to as *internal feeling state*. This had obvious disadvantages. In particular, we could not for certain differentiate between emotion determined by cognition or by some form of conscious appraisal of some component of service from emotion determined by the somatic mechanism of emotional contagion. A focus on the expressive component of emotion would have allowed us to dwell further on this distinction. Nevertheless, the phenomenological and behavioral (expressive and instrumental) components of emotion have typically been found to covary significantly albeit imperfectly (see Dimberg, 1990a; Leventhal & Scherer, 1987; Long, 1978; Parrott & Hertel, 1999).

Since James (1890), "the concept of consciousness has been intertwined with the concept of attention" (Öhman, 1999, p. 325). By comparing the automatic and more conscious processes of information processing in Table 3 and by keeping in mind the *mere exposure effect* experiments reported in Zajonc (1980) and other work based on procedures such as *backward masking* (see Dimberg, 1990a; Dimberg & Öhman,1996; Marcel, 1983; Öhman & Soares, 1994), it appears not only possible but probable that the evaluation of services may often not require or even involve conscious mediation. In turn, this would suggest the primacy of affect (see Zajonc, 1980, 1984). Accordingly, Buck (1991b) states

that:

> [t]hus, Hegel was perhaps wrong after all in his conclusion that "everything that is real is rational". Everything that is real is emotional; the rational is our subsequent linguistically structured elaboration of that reality. (p. 136)

This conclusion not only puts emotion at the forefront of human functioning but also indirectly strikes a blow at the highly elaborated and until recently, long-lived attempts in the social sciences to stress cognition as the only sovereign principle of human functioning (see Öhman, 1999).

Nevertheless, the results reported above suggest that a process where emotion is sovereign in the service encounter only occurs when cognitive complexity is not triggered. Specifically, in the least eventful conditions where positive emotion was displayed given a positive outcome for the patient resulted in matched emotional states between provider and consumer (see Figures 21 and 22). Matched emotional states also seemed to appear to some extent in the condition where negative emotion was expressed given a negative outcome for the patient and in the condition where negative emotion was expressed given a positive health outcome. In the condition where inappropriate positive emotion was displayed given a negative outcome for the patient, matched emotional states did not appear. This condition clearly triggered an emotion process other than emotional contagion. An interpretation along the lines of more cognitively-laden processes such as counterempathic reactions (see Englis et al., 1982) or cognitive appraisal (Lazarus, 1991a, Weiner, 1985a, 1986) appears justified. In a like vein, Wegner and Vallacher (1986) found that failures to obtain a desired outcome are more likely to elicit attention to details of an action strategy than successful actions. Similarly, Holyoak and Nisbett (1988) have observed that "people make inferences only when there is some triggering condition. An event or relationship must be problematic, unexpected, or at least interesting, before people begin to make inferences" (p. 61).

Another important and related finding rests on the estimation of two structural equation models (see Figures 31 and 32). Encounters where failure in emotional labor occurs appear to result in a cognitive or *cold* evaluation process. Affect does not appear to play an important role in the evaluation of these encounters. Here, satisfaction emerges as a cognitively-laden evaluation. On the other hand, uneventful encounters where affect is in all

likelihood induced socially, appear to involve a sequence of evaluation factors which is heavily affect-laden; and this, especially with respect to satisfaction. It is incorrect to think of the more cognitive sequence for eventful encounters as more efficient and informative. Feelings clearly provide information. Dewey (1925) argues that this information function is highly efficient and more so than that provided by thought:

> [t]hese 'feelings' have an efficiency of operation which is impossible for thought to match. Even our most highly intellectualized operations depend upon them as a 'fringe' by which to guide our inferential movements. They give us our sense of rightness and wrongness, of what to select and emphasize and follow up, and what to drop, slur over and ignore among the multitude of inchoate meanings that are presenting themselves ... These qualities are the stuff on 'intuitions.' (p. 244)

Finally, when the plan for this experiment was elaborated, we were certain of the theoretical advantages in studying contagion in the service encounter but not at all certain of its viability and of how it would be received by marketing academics. We wondered if we could devise a procedure where not only a service encounter could be simulated but also one that had the potential to result in emotional contagion in the subject/observer. The experiments by Lanzetta and colleagues evidenced that contagion can result from video excerpts (e.g., McHugo et al., 1985). Later, when we set off to incorporate emotional contagion in a framework of service evaluation, we wondered whether this would represent a useful addition or unhelpful artifice. The results apparently suggest that the phenomenon does occur in the service encounter and that it appears to carry an effect on evaluation factors.

11.2 Limitations and Suggestions for Future Research

This work involves many limitations. Some are generally attributable to most work on emotion whereas others are specific to this undertaking. Lazarus (1999) argues that the analysis of the tripartite conceptualization of mind (emotion, cognition, and motivation) has more often than not been reductive. He adds that: "[t]here has long been a widespread failure to realize that reduction distorts the way phenomena operate naturally" (p. 13). A variety of authors have suggested that the three processes are fused (e.g., Bruner, 1986; Leventhal & Scherer, 1987; Santostefano, 1986; Sigel, 1986; Sorrentino & Higgins, 1986) or interactive (McDougall, 1923). Motivation was not addressed here. Hence, the basic triad of emotion-

cognition-motivation was therefore not addressed as such. Extensions of this work should try to do so. The importance and role of motives (needs) is barely apparent in the services marketing literature (Oliver, 1996) although the service encounter clearly remains a goal-directed activity. The notion of *need* or *motive* can involve utilitarian considerations but also those of a more dispositional nature such as n-affiliation and n-power (see Jackson, 1999) as well as other social motives (see Fridlund, 1990, 1991a). In particular, attention to the variable n-affiliation seems promising in future empirical assessments of the relations specified in the model of the emotion system.

By taking stock of the potential effects of cognition, affect, and motivation, we add complexity but also augment explanatory power and the potential for dynamic accounts. Synthesis and integration are called for in the theories of services marketing and more generally of consumer behavior. We will go so far as to say that a metatheory is needed and that it should be based on the potential involvement of all the components of the basic triad in the service encounter and in its evaluation. Such a theory should not only be content-oriented but should also suggest a process by which these basic components of human psychology interact in the evaluation of services and result in behavior. An even more complex model would involve the specification of social context considerations and of other dimensions which underlie the sociality of emotion in interaction (see Chovil, 1993; Fridlund, 1990; 1991b, 1992a; Hess et al., 1995; Jakobs et al., 1996, 1997).

The affirmation that the semantic categories of *emotion, cognition,* and *motivation* represent processes which are somewhat inseparable or fused (Lazarus, 1999) is not only based on observations gathered at the level of psychological inquiry (e.g., Bruner, 1986; Santostefano, 1986; Scheff, 1985) but also at the neurobiological and neurophysiological levels of functioning (see Izard, 1992, 1993; LeDoux, 1989, 1995a; Plutchik, 1991). In reality, these semantic categories do not exist in nature but are constructed by researchers who also "define their parameters, and strive to discover legitimate instances representing the categories" (Sigel, 1986, p. 214). This observation is especially relevant to the differing perspectives on what constitutes cognition. Zajonc (1980, 1984) paralleled cognition to the type of information processing that underlies a computer and suggested that simple

perceptual processes did not constitute cognition. On the other hand, Lazarus (1984a, b, 1991a) offered a broader perspective and went on to suggest that some form of cognition *always* precedes emotion. This type of categorization was done here. It was necessary to clearly delineate affect-laden constructs from those which are cognitive. Zajonc's perspective on what is cognition was adopted.

Our treatment of emotion and cognition has obviously involved reductionism and encapsulation. This may be attributed not only to a traditional perspective on latent constructs and their measures (see Bagozzi, 1994a; Bollen, 1989; Churchill, 1979; Gerbing & Anderson, 1988) but also to an effort aimed at resolving the conceptual and operational confounds among some of the various factors examined here and at facilitating our attempts at relating categories of objects in some causal sequence (see Lazarus, 1993, 1999; Shweder, 1993; Sigel, 1986). For instance, it was necessary to assume that service quality represented a purely cognitive evaluation and satisfaction a more affect-laden reaction to service delivery. Although these assumptions are justifiable (see Mano & Oliver, 1993; Oliver, 1993a, b, 1994, 1996; Westbrook & Oliver, 1991), they most certainly have resulted in distortions of the true or "natural" processes (Dewey & Bentley, 1989) which underlie consumer reactions to a service encounter. Distortion is perhaps generally made apparent in the services evaluation literature where the issue of whether service quality or satisfaction comes first still awaits resolution (Bitner & Hubbert, 1994).

Attempting to sort categories of objects in some causal order is perhaps futile. For instance, Leventhal and Scherer (1987) reported that it was very difficult to identify incidences of cognition-free emotion and emotion-free cognition. Similarly, Sigel (1986) asks: "Is there a pure affective category - that is, a category with no indication of cognitive awareness? Is there a category of pure cognition?" (p. 214). He adds that: "[i]t all depends on whom one asks and what criteria and definitions are used as bases for seeking answers" (p. 214). Others have put in question the presumed causal order of cognition and emotion and have clearly adopted a stance that does not propose that affect and cognition are involved in some causal sequence (Bruner, 1986; Izard, 1993; Scheff, 1985). In fact, bidirectionality has been repeatedly observed between the two processes (see Forgas, 1999; Parkinson, 1987;

Zajonc, 1998). Accordingly, Sorrentino and Higgins (1986) have proposed that it is impossible to separate the study of *hot affective* and *cold cognitive* processes. Instead, they suggest that the focus be on a *warm look* or a blending of the two that acknowledges that affect and cognition operate in parallel and in a mutually influential manner. This acknowledgment should be seriously considered in future investigations of service evaluation. It invites an effort to look back at how psychological, biological, neural, and physiological systems exist in nature rather than a look forward which is inevitably based on existing knowledge in the area which, in turn, is based on ill-defined[119] and encapsulated categories. Just as with the relation between cognition and emotion, the links between service quality, satisfaction, and emotion remain to say the least, obscure.

Integration invites the development of dynamic models (Isen & Hastorf, 1982). Such an attempt was made here. The proposed model clearly involves multilevel dialectics and its feedback components render it truly dynamic. However, many of its component processes remain untested. A test of some of these components could perhaps involve the procedure used in Scherer (1993) to test the general validity of his cognitive theory of emotion and more specifically, the proposed sequence of his five appraisal dimensions. This procedure involved a computer-based AI system.

The experimental nature of this study brings forth many limitations. In particular, we were limited to the conveyance of one basic emotion per video vignette. Given the methodology developed and employed here, the investigation of additional emotions would involve the generation of additional video vignettes. If done properly, this approach is quite costly and time consuming. Moreover, the conveyance of any "pure" form of emotion is difficult because as Ellsworth (1991) noted the nonverbal facial (skeleto-motor) components involved in one emotion often appear in another. Furthermore, Scherer (1992) pointed out that facial expressions do not only convey emotion but cognition as well. Most certainly, this type of confounding occurred in the video manipulations used for the study conducted here.

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[119] Categories such as *satisfaction* and *service quality* have been attributed varying levels of affective and cognitive content (see Oliver, 1994). This lack of consensus allows one to hold that they are currently and generally poorly defined (see also Cronin & Taylor, 1994).

In addition, the sadness we attempted to generate in subjects via contagion was in all likelihood not experienced as "pure" sadness because mood induction research has rather inadvertently "studied sadness in complex states in conjunction with other cognitive and emotional factors rather than sadness itself" (Power, 1999, p. 498). Thus, this other form of confounding of cognitive and emotional states was likely in this manipulation (Parrott & Hertel, 1999).

The manner in which emotional contagion was assessed here was clearly limited. The measurement of emotion in consumers was based on self-reports of the internal feeling state component. In some studies, only self-report has been used as support for an explanation which attributes the occurrence of emotion to emotional contagion (e.g., Jakobs et al., 1997). However, self-report is not the method of choice for investigations of processes which may occur outside of awareness (Dimberg, 1990a; Öhman, 1999). Specifically, self report is unable to ascertain whether a subject mimicked or rendered facial displays indicative of contagion because this process is unconscious. In addition, self-report methodologies have been vulnerable to demand effects in many studies of emotion and especially those concerned with the facial feedback hypothesis (see Buck, 1980; Manstead, 1988; McIntosh, 1996). Demand characteristics may have played an important role in this study. Although every possible precaution was taken to reduce their occurrence, the scales which assessed provider emotion and consumer emotion were very similar if not identical except for different sets of instructions. This may have consequently cued the subjects with respect to the purpose of the study.

Some investigations of emotional contagion have relied on both self-report and judges' ratings of subjects' facial expressions while they were exposed to stimuli (e.g., Hatfield et al., 1995; Hsee et al., 1990, 1992, 1993; Labott, Martin, Eason, & Berkey, 1991). This procedure was facilitated by capturing the facial expressions of subjects with a hidden video camera. The training of expert judges in emotion recognition and the subsequent videotaping of subjects and the rating of their facial displays was at first entertained. The rating system developed by Kring (Kring & Sloan, 1991; Kring & Tomarken, 1993) was considered. It is essentially based on having judges rate facial expressions with respect to

Russell's (1979, 1980) *valence* and *arousal* dimensions. Nevertheless, the idea was quickly abandoned because it was (a) very time consuming and (b) involved costs which were prohibitive not only in training the judges but also in having them provide subsequent ratings of the many videos such an approach would have generated. Moreover, such procedures are not without their own set of problems (see Ellsworth, 1991; Scherer, 1992).

More direct measurement methodologies have involved behavioral-expressive (electromyographic activity) and/or psychophysiological (Autnomic Nervous System activity) indices of emotion (see Dimberg, 1990a; Levenson, 1996; Parrott & Hertel, 1999). ANS activity or facial EMG measures (see Dimberg, 1990a; Levenson, 1996) can assess unconscious emotional responses. Hence, more thorough or alternate investigations of this type may involve multi-modal assessment or a combination of measures of each response component (Carlson & Hatfield, 1991).

Facial EMG activity has repeatedly been found to discriminate among emotions (Brown & Schwartz, 1980; Cacioppo et al., 1988, 1992; Dimberg, 1990a; Fridlund & Cacioppo, 1983; Fridlund & Izard, 1983; Fridlund et al., 1984; Sinha & Parsons, 1996; Tassinary & Cacioppo, 1992; Tassinary et al., 1989). Others have argued that ANS activity measures are also useful (cf. Dimberg, 1990a; Levenson, 1992, 1996; Levenson et al., 1990, 1992). A future project should involve not only the use videotapes and trained judges but also simultaneous use of an electromyographic (EMG) apparatus to detect facial muscle activity while subjects are exposed to stimuli. A much more ambitious project may involve securing access to a PET scan device (see Scherer, 1992; Sutton et al., 1997) or an EEG machine (e.g., Henriques & Davidson, 1991) to monitor the occurrence of emotion in the brain during exposure to stimuli.

When emotionally-laden stimuli are used as independent variables (e.g., mood/emotion priming) or when emotion is induced by manipulations of facial feedback for instance, a non-emotional control condition appears necessary to clarify that the resultant states are due to differences in the emotions that are induced (e.g., Strack, Martin, & Stepper, 1988). Accordingly, a non-emotional control condition should have perhaps been devised for use in this study. It may have been based on a film where toned-down everyday emotions

were conveyed by the actor. Cost considerations largely prevented us to proceed with the production of an additional video vignette. Undoubtedly, such a vignette would have involved much trial and error. In fact, in hindsight, it seems that the proper production of such a video vignette would have been hard to conceive (scripted nonverbal behavior, prosody, etc.) and even more difficult to execute. Furthermore, had the attempt been undertaken, there were no guarantees that the desired non-effect would have been achieved. A poor execution may have actually introduced variation into the design rather than provide a control condition. This would have rendered comparisons rather meaningless. Another approach to generating a control condition could have rested on not showing a film to some subjects (Parrott & Hartel, 1999). This would have allowed clearer comparisons with respect to consumer emotion. However, using a non-video control condition was not tenable because ratings on dependent variables (e.g., service quality) would have been impossible to gather. More generally, problems have often been encountered in emotion research with respect to what constitutes a proper control condition. In particular, it is difficult to control concomitantly all the non-emotional aspects of materials presented to subjects (see Dagleish, 1995; Hertel & Milan, 1994; Heuer & Reisberg, 1992). Nevertheless, future studies of this type should look into the possibilities of establishing a proper and tenable video-based control condition.

An ethical issue emerged in this research in that we advertently attempted to generate an aversive state (i.e., sadness) in our subjects (see Yuille & Tollestrup, 1992; Wallbott & Scherer, 1989). However, this was inevitable given the experimental nature of the study and that the opposition of positively valenced and negatively valenced emotional states was at the core of many hypotheses. Another limitation may stem from the brevity of the video manipulations (3 to 4 mins.) which sought to simulate an interpersonal service context. This concern seems especially relevant to the realism of the service encounter which was portrayed. A typical medical encounter presumably lasts more than three to four minutes.

An associated and wider concern involved ecological validity issues (Bateson & Hui, 1992; Herrman, McEvoy, Hertzog, Hertel, & Johnson, 1996; Parrott & Hertel, 1999). At first, we thought that if the ecological validity of photographic stills simulating a service

setting can be demonstrated (see Bateson & Hui, 1992), a video simulation would perhaps automatically provide greater realism because of its dynamic nature (see Scherer, 1992). In fact, Bateson and Hui (1992) reported no differences in ecological validity from a comparison of structural equation models based on data generated with photographic stills or a video simulation. In a way, this was reassuring. Nevertheless, our simulations consisted in monologues and no active participation was afforded to the subject (consumer). Clear and obvious realism issues emerge. In addition, it was not possible for "true" behavioral consequences to be assessed. We were limited to measures of behavioral intention. The use of a trained actor in real life simulations of a service encounter should perhaps be entertained in future research. Levenson and Gottman (1983) hold that:

> [s]ocial interaction provides a rich, naturalistic, and theoretically advantageous context for studying the relations among physiological, affective, and behavioral phenomena. Unfortunately, the demands associated with a laboratory experimentation extract significant compromises that may escalate until the experimental context bears little relation to natural dyadic interaction. For example, interaction between two strangers may be substituted for interaction between intimates; a carefully "programmed" confederate may replace the second person; and finally, the confederate may be replaced by a film, a photograph, and audio recording, or a situation created in the subject's own imagery. (p. 587)

The medical setting was purposely chosen mainly because of its high levels of personal contact and potential for affective content. The medical world represents but one class of service occupations. Results would need to be replicated across other occupations. It has been reported that some service occupations do not require much emotional labor (e.g., convenience store clerks) and typically involve minimal expectations of emotional labor on the part of customers under conditions of expediency and crowding for instance (Rafaeli, 1989a, b). The question remains as to how customers would react to varied emotional expressions in such settings and whether such expressions are important to service evaluation factors in these contexts.

Despite the obvious advantages of laboratory experiments (i.e., control, random assignment to conditions, increased likelihood of establishing causality, internal validity, etc.) (see Kirlinger, 1986), more naturalistic methods may be employed in future research of this type. These efforts should perhaps adopt a position such as that of social constructivists

which incorporates notions from various disciplines but also involves qualitative and quantitative methodologies in the phenomenological study of emotion. Such an approach was beyond the scope of this dissertation and would have impeded its causal nature. On the other hand, naturalistic methods circumvent many of the problems associated with laboratory settings (Parrott & Hertel, 1999; Scherer & Ceschi, 1997). Emotions occur naturally and researchers can take advantage of emotionally-charged occurrences in everyday life. Structured diary methods are well suited for this type of investigation (Averill, 1982; Oatley & Duncan, 1992, 1994; Planalp et al., 1996; Rimé, Mesquita, Philippot, & Boca, 1991). Moreover, naturalistic studies not only involve higher levels of external validity (generalizability) but their methods allow one to tap aspects of emotion which are not accessible in laboratory settings (e.g., rates of occurrence/frequency, actual features of emotion that do or do not appear in natural settings, naturally induced intensity, prolonged episodes of emotion, long lasting effects, etc.) (e.g., Averill, 1982; Diener & Larsen, 1984; Diener et al., 1985; Forgas & Moylan, 1987; Oatley & Duncan, 1992). These methods also allow for the study of the temporally-ordered sequence of occurrences which underlies emotion and typically involves differential participation of its components over the duration of an emotion episode (Russell, 1989, 1997). Structured diaries also allow for the investigation of an individual's construction of a particular emotion in the constructivist sense. For instance, Averill's (1982) account of anger is impossible to replicate with laboratory methods. Diary-based methodologies also generally permit investigations of affect after an important event has taken place (e.g., Levine, 1996; Nolen-Hoeksema & Morrow, 1991) or a critical incident has occurred (e.g., Bitner et al., 1990, 1994). Thus, they enable the study of events that carry personal significance and which reflect real-life contexts. Dimensions of appraisal akin to the notion of *personal significance or meaning* are an important determinant of emotion in the cognitive perspective (see Lazarus, 1991a; Scherer, 1988b, 1992, 1999; Weiner, 1986).

On the other hand, naturalistic approaches are not without fault. Their use should involve the acknowledgment and thorough investigation of alternative explanations (Cook & Campbell, 1979). Furthermore, the causal inferences that one may draw from such data

are often limited in that the distinction between emotion as dependent or independent variables is less defined. Hence, the studies remain correlational or quasi-experimental (Parrott & Hertel, 1999). In response to the problems associated with experimental and naturalistic studies, some have advocated an approach to research that involves a complement of both laboratory and naturalistic methods (e.g., Kihlstrom, 1996; Williams, 1992). Such an approach may also serve future attempts at investigating the impact of service providers' emotional displays on customers' affective states and service evaluations.

Emotion was presented and examined here as an independent and dependent variable. Its dependent nature emerges in the contagion and appraisal aspects of the study. Future studies of emotion in service encounters should emphasize its dependent variable status. This may involve exhaustive examinations of antecedent appraisal forms which determine emotion in this specific form of interaction. Fundamental to appraisal theories is the notion that discrete emotional states, be they positive or negative, involve dissimilar patterns of appraisal. Ellsworth (1991) states that: "[a]n emotion may affect people's judgments of new situations in way that correspond to the appraisals that are most diagnostic of that emotion" (p. 151). Expectancy disconfirmation, the single form of cognitive appraisal which predominates the services evaluation literature, is clearly not sufficient to explain a discrete emotional state (and to potentially specify felt satisfaction beyond a valenced state) because a set of multiple appraisal dimensions is required to do so (Smith & Ellsworth, 1985, 1987; Scherer, 1999). The studies of Reisenzein (Reisenzein & Hofmann, 1990; Reisenzein & Hofmann, 1993; Reisenzein & Spielhofer, 1994) provide procedures with which an exhaustive number of appraisal dimensions can be evaluated for their relevance to emotion-eliciting events in service encounters.

Another limitation of this study (and of many studies of emotion) is that we implicitly assume that the criteria which define an emotion are those which we measure. However, Fridja et al. (1989) hold that the names we give to emotions refer to structures of constituents "in which the relevance and criteriality ... [of constituents] differ from name to name" (p. 225). In other words, the set of criteria we for instance use to define happiness, sadness, and anger may in reality not be adequate because each of these emotions may involve a differing

structure of relevant criteria. Similar arguments appear in Russell (1987, 1993, 1997) as well as in Scherer (1993) who suggest that an emotion label is only a semantic category which is insufficient to account for the experience of the state that we are attempting to assess. This point is perhaps most evident in the work of Averill (1980a, b, c, 1982, 1984). Averill (1980a) presents emotions as syndromes which are *polythetic* or "not definable in terms of a limited number of characteristics" (p.308). Importantly, Averill (1980b) suggests that not every instance of any particular emotion is necessarily associated with all four of the proposed components of emotion: "there is no single response, or subset of responses, which is *essential* to an emotional syndrome" (p.146). In other words, manifestations of any subset of the components of emotion may be sufficient to define an emotional experience but none is absolutely necessary. Accordingly, Averill (1980a) holds that: "[a]n emotion syndrome may include many diverse elements, some of biological and some of social origin, but none of which is essential to the identification of the syndrome as a whole" (p. 308). The adoption of such a perspective on emotion typically involves a more qualitative approach to the study of the phenomenon than the experimental approach exemplified here. A diary-based approach is once again suggested for future studies (Averill, 1982; Malatesta-Magai & Culver, 1991; Oatley & Duncan, 1992, 1994).

In addition, the component factors of emotion have been presented as cross-culturally malleable (Averill, 1982; Mesquita & Fridja, 1992; Russell, Fernandez-Dols, Manstead, & Wellenkamp, 1994; see also Kitayama & Markus, 1994; Markus & Kitayama, 1991). Hence, our results may not be replicable in other cultural settings. Kluckhohn (1954) argued that culture is to society what memory is to an individual. Thus, culture shapes many aspects of life and includes more than the transmission of customs (Triandis, 1972, 1994; Triandis, McCusker, & Hui, 1990). Cultures differ in many respects. Systematic and useful dimensions of cross-cultural variability have been elaborated by Hofstede (1980). Individualism - collectivism "appears to be the most important world view that differentiates cultures" (Triandis, 1994, p. 286). The two divergent cultural orientations have been shown to predict differing social behaviors (see Triandis, 1994; Wheeler, Reis, & Bond, 1989) and cross-cultural differences at the intrapersonal level with respect to motivation, cognition, and

emotion (Markus & Kitayama, 1991). In the field of emotion, individualism-collectivism has been identified as a major dimension of cultural variability in expressed and perceived emotion (Aune & Aune. 1994, 1996; Gudykunst & Ting-Toomey, 1988; Hofstede & Bond, 1984; Kitayama & Markus, 1994; Markus & Kitayama, 1991; Matsumoto, 1989, 1991; Triandis, 1994). Thus, future studies should attempt to demonstrate how different cultures may react to emotional displays in service providers. This seems especially important now that service delivery systems are being exported (Winsted, 1997) and that contacts across cultures are being facilitated via technological developments in telecommunications (e.g., teleconferencing).

Additional research and findings are necessary to fully establish the effects of service providers' emotional displays on service evaluations. Both processes are at once so common and so little understood. An underlying theme of the emotion system proposed in Chapter Six was authenticity-inauthenticity. The research presented here focused on authentic displays of emotion. Future research should also look into the impact *surface acting* or inauthentic (contrived) displays of emotion (Ashforth & Tomiuk, 2000; Erickson, 1995; Hochschild, 1983a) on service evaluation factors. Subjects have been shown to be able to detect deceit and false expressions of emotion (DePaulo & Friedman, 1998; Ekman, 1990; Ekman & Friesen, 1982; Hess et al., 1989; Hess & Kleck, 1990). Hochschild (1983a) indicates that unfelt expressions may be detrimental to service evaluation and clearly associates the personalized delivery of services with felt and spontaneous expressions and thus, with *deep acting*. An examination of the effects of *surface* vs. *deep acting* on consumer reactions to such displays appears warranted. In other words, future investigations of this type should involve the examination of the effects of expressions rooted in mere impression management (DePaulo, 1992; Leary, 1994; Schlenker, 1980; Snyder, 1974, 1979, 1987) versus those of a spontaneous nature.

The investigation reported here was limited to the effects of the displays of two discrete emotions (happiness and sadness). Embarrassment (Goffman, 1967; Miller & Leary, 1992; Schlenker, 1980), shame (Fridja, 1986; Izard, 1977), and anger (Averil, 1982) represent emotions which should be studied in the context of services management and

marketing. Their occurrence is realistic in service occupations. Embarrassment in particular is a social emotion. It typically if not always arises in interaction (Leary, 1983; Miller & Leary, 1992). It is difficult to conceive of embarrassment occurring in solitude during the consumption of a tangible product. As a social emotion, its study may enhance the treatment of emotion in marketing in that it invites a more expanded perspective of the traditional intrapersonal view of emotion. Embarrassment may occur in the service provider after being caught in a misrepresentation of a product or service, following a poor performance, etc. In the case of the consumer, it may for instance occur during a medical visit, in interaction with a law enforcement officer, or with a bill collector.

Finally, in relation to our conceptual model in Figure 9, a variety of other proposed relationships were not addressed in the present work. In particular, the provider side of the model requires more attention. It suggests substantial deviations from the emotional labor process suggested in Hochschild (1979, 1983a). This may be addressed in future research with qualitative methodologies such as participant-observation and directed interviews.

11.3 Managerial Implications

This work asserts the importance of service employees' emotional displays on consumers' service evaluation factors and that consumer emotion intervenes in evaluation. Provider displays are partly governed by feeling rules (Hochschild, 1983a) and/or display rules (Rafaeli & Sutton, 1988; see also Ekman & Friesen, 1969b) which are, in turn, based on organizational, occupational, and societal (sociocultural) norms. The organization should therefore ensure that appropriate norms are articulated, that boundary-spanning employees are made aware of them, and that they incorporate them into their behavioral repertoires. This can be achieved via the process of organizational socialization or through more formal training programs designed to sensitize employees to the effects that their expressive behaviors may have on customers.

So as to increase the likelihood of a positive functional quality evaluation, the organization may (a) change service providers' emotional displays in order to make them consistent with customers' expectations and/or (b) change the clients' expectations as to the emotional displays of service providers and get them to form new ones which are consistent

with those offered by the service providers. Promising ever increasing levels of service "with a smile" appears to be self-defeating in that it increases the potential of employee dysfunction (Hochschild, 1983a).

Ultimately the power of faces (McHugo & Smith, 1996) in the service encounter is suggested by our research. Service providers need to be made aware that emotional contagion does occur and that their emotions can therefore directly impact the emotions of consumers. The occurrence of this process in the service encounter can be used as a powerful tactic to prime and sustain the emotional state of consumers during the service encounter. In this sense, the strategic use of emotion not only involves emotional labor and its more obvious effects (e.g., perceptions of courtesy) but also the potential to infect consumers with an expressed emotional state.

Emotion has many functions (see Cornelius, 1996; Fridja, 1986; Zajonc, 1998). When affect is thought of in terms of its information function, the proposed model not only acknowledges that cognition and intrapersonal affect provide information (Booth-Butterfield & Booth-Butterfield, 1990; Buck, 1991b; 1994; Lazarus, 1991a; Schwarz, 1990; Schwarz & Clore, 1988) to the consumer and the provider but by acknowledging and including emotional contagion, it enables each participants to access the feelings of the other (Hatfield et al., 1994). Thus, affect becomes an interpersonal construct with a directly (cognitively unmediated) accessible interpersonal information function. Although this has been known in therapy relations for quite some time (Jung, 1968), this constitutes a category of *affect as information* that has only recently been suggested in mainstream psychology (Batson et al., 1995; Hatfield et al., 1994) and has until now not been discussed in the services literature. Thus, via a process such as self-perception (Laird & Bresler, 1992) or perhaps self-focused attention (see Lanzetta, Biernat, & Kleck, 1982; Wicklund, 1975) emotional contagion may give service providers access to the emotions of their clients/customers (Hatfield et al., 1994). Not only can this augment perceptions of empathy but can also lead to an intimate understanding of a client's situation which is beyond that of words.

High contact employees can be screened on this ability via a number of short and easily administered measures such as the Affective Sensitivity Test (Kagan, 1978), the

Susceptibility to Emotional Contagion Scale (Doherty et al., 1993; Doherty, 1997), the Autonomic Reactivity Scale (Klein & Cacioppo, 1993), and other measures of affective sensitivity (see Snodgrass et al., 1998; Kenny, 1994). Employees can also be screened on their ability to infect clients. Measures of emotional expressivity (see Gross & John, 1995, 1997; Kring et al., 1994) appear as good candidates. This construct is not merely a function of self-presentation (e.g., Briggs et al., 1980; Snyder, 1974, 1979) but is rather more closely related to scores on such scales as the Affective Communication Test (Friedman et al., 1980). The Facial Expressiveness Scale also appears as a good candidate for gauging nonverbal expressivity (Klein & Cacioppo, 1993). The conceptual domains of expressivity also seem to somewhat overlap with those which underlie the Affective Orientation Scale (Booth-Butterfield & Booth-Butterfield, 1990). This latter scale is not mentioned in relation to contagion in the literature (see Hatfield et al., 1994). However, its conceptualization is based on *affect as information* and its communication theory background clearly make of this scale an ideal instrument to assess an employees ability to use the variety of information provided via contagion. The scale assesses: (a) awareness of emotion and (b) use of emotional cues.

The proposed model also addresses quality control issues by specifying four streams of communication by which emotions can be conveyed to the customer. Three of the proposed streams represent expressions of appropriate/expected emotions and this makes quality control issues a little less elusive in the context of services (e.g., Bateson, 1989; Bitner & Zeithaml, 1988; Brown & Swartz, 1989; Parasuranam et al., 1988). Results clearly indicate that deviant (unregulated) emotional behavior is to be avoided for, in all likelihood, it has a detrimental effect on service evaluation. By sensitizing employees to the notion that affect is information may result in a more able delivery of service. In this perspective, the provider side of the model quite generally rejoins the prescriptive framework of *Do's and Don't's* suggested by Bitner's work on critical incidents (Bitner et al., 1990, 1994; Zeithaml & Bitner, 1996).

As in Hochschild's (1983a) perspective, the model implicitly addresses authenticity issues (Ashforth & Tomiuk, 2000; Erickson, 1995; Erickson & Wharton, 1997). Authenticity clearly underlies interactional quality. Inauthentic displays may lead to loss of patronage

(Grove et al., 1992) and should thus be avoided and monitored. Authenticity-inauthenticity emerges here as a dimension of the four proposed streams of communication. Three of the four categories of displays are presented as truly "felt" and spontaneous. Only one emerges as potentially inauthentic (i.e., displays which stem from surface acting) in that it involves feigned or contrived displays of emotion. On the other hand, discussion of inauthentic displays appears inevitable in the level of discourse of dramaturgical metaphors (Grove et al; 1992) and role theory (Broderick, 1998) perspectives simply because they cannot address internal functioning to the extent that an interactional and interdisciplinary theory such as the one proposed here is able to do. These theories place authenticity in "backstage settings" and inevitably discuss *seemingly authentic displays* and the actor's skill in conveying a managed, seemingly genuine, or pseudo-authentic impression before an audience (e.g., Goffman, 1959). They also often place the discussion of authenticity within the perspective of multiple selves (e.g., Rhodewalt & Agustsdottir, 1986; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997; Tice, 1992). In our perspective, the issue of identity is somewhat bypassed with emphasis on internal and interactional considerations related not to self-presentation but rather to the internal regulation of emotion, an intrapersonal process which is triggered by interpersonal and social considerations. This process is reflected and gauged in repeated impacts of provider displays on the consumer over the encounter and thus places the consumer in a position of judge of the authenticity of the provider. Clearly, discussion of felt emotion, emotional labor, and its consequent impact on the consumer requires a much deeper and multifaceted level of discourse than that which stems from dramaturgical metaphors or role theory perspectives.

Cross-cultural differences in expression norms and display rules (e.g., Ekman & Friesen, 1969b; Markus & Kitayama, 1991; Matsumoto, 1989, 1990, 1991; Matsumoto & Assar, 1992; Mesquita & Fridja, 1992) need to be acknowledged. Violations by a provider of culturally specific expression norms may result in increased cognitive complexity on the part of an unacculturated consumer, and hence, in a cognitively mediated emotion process. For instance, an exuberant display of emotion is typically not well regarded by individuals of collectivist cultures (Markus & Kitayama, 1991) and may result in making an

unacculturated customer (for a discussion of immigrant adaption, see Berry, 1990) uneasy and confused rather than triggering a spontaneous emotion process based on primitive emotional contagion.

To inculcate in frontline employees the many possible relations discussed in the model, various training programs appear suggested. Hatfield et al. (1994) warn that certain organizations naively train individuals to consciously mimic the expressions of customers/clients in the hope that this will calm them or put them at ease. They hold that in the case of irate customers, this practice may result in violence rather than calming; and this, especially if a mutual emotion process based on preparedness is triggered. In addition, there is some question as to whether conscious mimicry is effective. For instance, Davis (1985) holds that microsynchrony is an unconscious phenomenon and that the conscious mirroring of others is bound to appear false. LaFrance and Ickes (1981) found that too much conscious mimicry between interaction partners resulted in an evaluation of the encounter as strained, forced, and awkward. Thus, conscious mimicry does not only seem ineffective in generating an empathic response but also appears to carry negative consequences on interactional quality/satisfaction. On the other hand, what appears to be stressed in the emotional contagion literature is the result of unconscious mimicry and feedback; namely, the resultant emotional state and the bringing of that state into awareness. In this perspective, felt emotion involves an information function: it carries information about the other person's feelings.

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APPENDIX I

QUESTIONNAIRE

QUESTIONNAIRE

CONDITION # _____

ID # _____

It is very important that you follow very carefully the instructions given to you by the researcher.

Some sections may appear identical. THEY ARE NOT. Written instructions will change from section to section. Before providing answers to a section, please make sure that you read and understand the instructions in BOLD letters. Please provide a response to every question or statement. There are no right or wrong answers. Your responses should only reflect your opinions. If you are not sure of an answer, provide your best estimate.

Please be advised that all your responses will be kept strictly confidential and completely anonymous. We really have no way of associating a person with the questionnaire(s) he or she completed. The responses will only be used for statistical purposes.

We thank you for your participation in this study.

YOU WILL NOW SEE A SHORT VIDEO VIGNETTE OF AN ENCOUNTER WITH A PHYSICIAN WHO WILL BE ADDRESSING A PATIENT. <u>YOU ARE THAT PATIENT</u>. CONSIDER YOURSELF IN A REAL ENCOUNTER WITH A PHYSICIAN.

IT IS VERY IMPORTANT THAT YOU PUT YOURSELF MENTALLY AND EMOTIONALLY INTO THE SITUATION OF THE ENCOUNTER.

TURN THIS PAGE OVER ONLY AFTER YOU HAVE SEEN THE VIDEOTAPE
ANSWER THE ITEMS BELOW ONLY AFTER YOU HAVE SEEN THE VIDEOTAPE

(Affect Grid; Source: Russell et al., 1989)

When the physician was addressing you in the video, the emotion YOU predominantly felt was:

Extremely Unpleasant								Extremely Pleasant
1	2	3	4	5	6	7	8	9

Arousal has to do with how wide awake, alert, or activated a person feels - independent of whether the feeling is pleasant or unpleasant. When the physician was addressing you in the video, YOU predominantly felt:

Extreme Sleepiness								Extreme High Arousal
1	2	3	4	5	6	7	8	9

Rate your health outcome in your encounter with this physician:

Very Negative						Very Positive
1	2	3	4	5	6	7

The cause of my health outcome in my encounter with this physician was on my part:

Not at all Controllable						Entirely Controllable
1	2	3	4	5	6	7

The emotions displayed by the physician were:

Not at all Appropriate						Entirely Appropriate
1	2	3	4	5	6	7

(Categorical scales of emotion; Source: Hsee et al., 1990, 1992, 1993)

Use the scales below to indicate the strength or intensity with which YOU FELT each of the following emotions and types of emotions when the physician was addressing you in the video. If you indicated above that the frequency for a particular emotion or type of emotion was '0' or 'Never,' then you should also indicate that its intensity was '0' or

'Nothing at All' because by stating '0' or 'Never' for its frequency, you indicated that you never felt this emotion during the encounter with the physician.

	Nothing at All										**Maximal**
Emotions:											
Happiness:	0	1	2	3	4	5	6	7	8	9	10
Sadness:	0	1	2	3	4	5	6	7	8	9	10
Anger:	0	1	2	3	4	5	6	7	8	9	10
Disgust:	0	1	2	3	4	5	6	7	8	9	10
Contempt:	0	1	2	3	4	5	6	7	8	9	10
Fear:	0	1	2	3	4	5	6	7	8	9	10
Satisfaction:	0	1	2	3	4	5	6	7	8	9	10

(PAD; Source: Russell & Mehrabian, 1974a, b)

Rate the feelings YOU were experiencing when the physician was addressing you in the video. For your ratings, use the adjective pairs below. For each pair, put a check mark closer to the adjective which you believe to describe your feelings better. The more appropriate the adjective seems, the closer you put your check mark to it. ***Give your opinion on every pair of adjectives.***

Happy	____:____:____:____:____:____:____:____:____	Unhappy
Pleased	____:____:____:____:____:____:____:____:____	Annoyed
Satisfied	____:____:____:____:____:____:____:____:____	Unsatisfied
Contented	____:____:____:____:____:____:____:____:____	Melancholic
Hopeful	____:____:____:____:____:____:____:____:____	Despairing
Relaxed	____:____:____:____:____:____:____:____:____	Bored
Stimulated	____:____:____:____:____:____:____:____:____	Relaxed
Excited	____:____:____:____:____:____:____:____:____	Calm
Frenzied	____:____:____:____:____:____:____:____:____	Sluggish
Jittery	____:____:____:____:____:____:____:____:____	Dull
Wide awake	____:____:____:____:____:____:____:____:____	Sleepy
Aroused	____:____:____:____:____:____:____:____:____	Unaroused
Controlling	____:____:____:____:____:____:____:____:____	Controlled
Influential	____:____:____:____:____:____:____:____:____	Influenced
In control	____:____:____:____:____:____:____:____:____	Cared for
Important	____:____:____:____:____:____:____:____:____	Awed
Dominant	____:____:____:____:____:____:____:____:____	Submissive
Autonomous	____:____:____:____:____:____:____:____:____	Guided

(Affect Grid modification; Source: Russell et al., 1989)

When the PHYSICIAN was addressing you in the video, he PREDOMINANTLY DISPLAYED an emotion that was:

Extremely Unpleasant								**Extremely Pleasant**
1	2	3	4	5	6	7	8	9

Arousal has to do with how wide awake, alert, or activated a person feels - independent of whether the feeling is pleasant or unpleasant. When the PHYSICIAN was addressing you in the video, he PREDOMINANTLY DISPLAYED:

Extreme Sleepiness								**Extreme High Arousal**
1	2	3	4	5	6	7	8	9

(Categorical scales of emotion; Source: Hsee et al., 1990, 1992, 1993)

Use the scales below to indicate the strength or the intensity with which the PHYSICIAN in the video DISPLAYED each of the following emotions and types of emotions. If you indicated above that the frequency for a particular emotion or type of emotion was '0' or 'Never,' then you should also indicate that its intensity was '0' or 'Nothing at All' because by stating '0' or 'Never' for its frequency, you indicated that this emotion was never displayed.

	Nothing at All										**Maximal**
Emotions:											
Happiness:	0	1	2	3	4	5	6	7	8	9	10
Sadness:	0	1	2	3	4	5	6	7	8	9	10
Anger:	0	1	2	3	4	5	6	7	8	9	10
Disgust:	0	1	2	3	4	5	6	7	8	9	10
Contempt:	0	1	2	3	4	5	6	7	8	9	10
Fear:	0	1	2	3	4	5	6	7	8	9	10
Satisfaction:	0	1	2	3	4	5	6	7	8	9	10

(Susceptibility to Emotional Contagion Scale; Source: Doherty, 1997)

Listed below are 15 statements. Read each statement carefully. Then indicate the extent to which each statement applies to you by circling the appropriate number on the scale. Provide only one answer per statement. ***Give your opinion on every statement.***

	Never	Rarely	Usually	Often	Always
01. If someone I'm talking with begins to cry, I get teary eyed.	1	2	3	4	5
02. Being with a happy person picks me up when I'm feeling down.	1	2	3	4	5
03. When someone smiles warmly at me, I smile back and feel warm inside.	1	2	3	4	5
04. I get filled with sorrow when people talk about the death of their loved ones.	1	2	3	4	5
05. I clench my jaws and my shoulders get tight when I see the angry faces on the news.	1	2	3	4	5
06. When I look into the eyes of the one I love, my mind is filled with thoughts of romance.	1	2	3	4	5
07. It irritates me to be around angry people.	1	2	3	4	5
08. Watching the fearful faces of victims on the news makes me try to imagine how they might be feeling.	1	2	3	4	5
09. I melt when the one I love holds me close.	1	2	3	4	5
10. I 'tense up' when overhearing an angry quarrel.	1	2	3	4	5
11. Being around happy people fills my mind with happy thoughts.	1	2	3	4	5
12. I sense my body responding when the one I love touches me.	1	2	3	4	5
13. I notice myself getting tense when I'm around people who are stressed out.	1	2	3	4	5
14. I cry at sad movies.	1	2	3	4	5
15. Listening to the shrill screams of a terrified child in a dentist's waiting room makes me feel nervous.	1	2	3	4	5

(PAD Modification; Original Source: Mehrabian & Russell, 1974a, b; see also Kring & Sloan, 1991)

You will now rate on the following scale (1) the feelings you believe THE PHYSICIAN predominantly experienced or felt and (2) the feelings he predominantly displayed when he was addressing you in the video.

Begin with the feelings you believe THE PHYSICIAN predominantly EXPERIENCED OR FELT. For your ratings, use the adjective pairs below. For each pair, write the letter 'F" closer to the adjective which you believe to describe the physician's true

feelings better. The more appropriate the adjective seems, the closer you put your 'F' to it. ***Give your opinion on every pair of adjectives.***

Now go on to rate THE PHYSICIAN on the feelings he predominantly DISPLAYED. For each pair, write the letter 'D' closer to the adjective which you believe to describe the feelings he displayed better. The more appropriate the adjective seems, the closer you put your 'D' to it. ***Give your opinion on every pair of adjectives.***

An 'F' and a 'D' may coincide or appear on the same space of the same line when in your opinion the emotion that the physician displayed was identical to the emotion you believe the physician felt. For example, if you believe that the physician truly felt extremely 'unhappy' but displayed feelings of moderate 'happiness,' your answer may look like this:

Happy ____:____:____:____:____:____:____:____:____ Unhappy

On the other hand, if you believe that the physician truly felt extremely 'unhappy' and displayed feelings of extreme 'unhappiness,' your answer may look like this:

Happy ____:____:____:____:____:____:____:____:____ Unhappy

***Reminder*:** **Write 'F' for the feelings you believe the physician predominantly FELT or experienced. Write 'D' for the feelings the physician predominantly DISPLAYED.**

Happy	____:____:____:____:____:____:____:____:____	Unhappy
Pleased	____:____:____:____:____:____:____:____:____	Annoyed
Satisfied	____:____:____:____:____:____:____:____:____	Unsatisfied
Contented	____:____:____:____:____:____:____:____:____	Melancholic
Hopeful	____:____:____:____:____:____:____:____:____	Despairing
Relaxed	____:____:____:____:____:____:____:____:____	Bored
Stimulated	____:____:____:____:____:____:____:____:____	Relaxed
Excited	____:____:____:____:____:____:____:____:____	Calm
Frenzied	____:____:____:____:____:____:____:____:____	Sluggish
Jittery	____:____:____:____:____:____:____:____:____	Dull
Wide awake	____:____:____:____:____:____:____:____:____	Sleepy
Aroused	____:____:____:____:____:____:____:____:____	Unaroused
Controlling	____:____:____:____:____:____:____:____:____	Controlled
Influential	____:____:____:____:____:____:____:____:____	Influenced
In control	____:____:____:____:____:____:____:____:____	Cared for
Important	____:____:____:____:____:____:____:____:____	Awed
Dominant	____:____:____:____:____:____:____:____:____	Submissive
Autonomous	____:____:____:____:____:____:____:____:____	Guided

(Emotional Expressivity; Source: Gross & John, 1995, 1997)

Please rate the physician you have just seen in the video vignette on the following items. Indicate the extent to which you agree or disagree with a statement by writing a number from '1' to '7' next to the statement. For some items, the response may not be obvious. You may have to infer your answer from the impression you had of the physician while he was addressing you. When unsure, please provide your best estimate. *Give your opinion on every statement.* Use the following key:

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

01. No matter how nervous or upset this physician is, he tends to keep a calm exterior. _____
02. Whenever this physician feels negative emotions, people can easily see what he is feeling. _____
03. What this physician is feeling is written all over his face. _____
04. People often do not know what this physician is feeling. _____

05. It is difficult for this physician to hide his fear. _____
06. This physician has learned that it is better to suppress his anger than to show it. _____
07. When this physician is happy, his feelings show. _____
08. Whenever this physician feels positive emotions, people can easily see exactly what he is feeling. _____

09. This physician laughs out loud when someone tells him a joke that he thinks is funny. _____
10. This physician is an emotionally expressive person. _____
11. This physician experiences his emotions very strongly. _____
12. This physician has strong emotions. _____

13. There have been times when this physician has not been able to stop crying even though he tried to stop. _____
14. This physician's body reacts very strongly to emotional situations. _____
15. This physician sometimes cries during sad movies. _____
16. This physician is sometimes unable to hide his feelings, even though he would like to. _____

(SERVPERF; Source: Cronin & Taylor, 1992; see also Parsuranam et al., 1988, 1991)

The following set of statements relate to your feelings about the physician you have seen in the video. PLEASE REMEMBER THAT YOU ARE THE PATIENT HE ADDRESSED. For each statement, please state the extent to which you believe the physician and his facilities have the feature described by the statement. In some instances you may have to infer your answer. Once again, placing a '7' on the line preceding the statement means you strongly agree that they have the feature, and a '1' means you strongly disagree. If your feelings are not strong, place one of the numbers between '1' and '7' on the line to properly reflect the actual strength of your feelings. There are no 'right' or 'wrong' answers. All we are interested in is the number

that best shows your PERCEPTIONS about the service provided by this physician.

	Strongly Disagree						Strongly Agree
	1	2	3	4	5	6	7

_____ P01. This physician has up-to-date equipment and technology.
_____ P02. This physician's physical facilities are visually appealing.
_____ P03. This physician is well-dressed and appears neat.
_____ P04. The appearance of his physical facilities is in keeping with the type of service provided.
_____ P05. When this physician promises to do something by a certain time, he does so.

_____ P06. When you have problems, this physician is sympathetic and reassuring.
_____ P07. This physician is dependable.
_____ P08. This physician provides his services at the time he promises to do so.
_____ P09. This physician keeps his records accurately.
_____ P10. This physician does not tell his patients exactly when services will be performed.

_____ P11. A patient does not receive prompt service from this physician.
_____ P12. This physician is not always willing to help a patient.
_____ P13. This physician is too busy to respond to patient requests promptly.
_____ P14. A patient can trust this physician.
_____ P15. A patient can feel safe in his/her transactions with this physician.

_____ P16. This physician is polite.
_____ P17. This physician gets adequate support from his clinic to do his job well.
_____ P18. This physician does not give a patient individual attention.
_____ P19. This physician does not give a patient personal attention.
_____ P20. This physician does not know what a patient's needs are.

_____ P21. This physician does not have his patient's best interests at heart.
_____ P22. This physician does not have operating hours convenient to all his patients.
_____ P23. This physician does not try to develop trust in his patient.
_____ P24. This physician is not coercive with his patient.
_____ P25. This physician displays compassion toward his patient.

_____ P26. This physician displays caring toward his patient.
_____ P27. This physician displays concern toward his patient.
_____ P28. This physician displays positive emotions toward his patient.
_____ P29. This physician does not display negative emotions toward his patient.
_____ P30. This physician displays good cheer toward his patient.

_____ P31. This physician displays appropriate and genuine interest toward his patient.
_____ P32. This physician displays empathy toward his patient.
_____ P33. This physician displays support toward his patient.
_____ P34. This physician displays understanding toward his patient.
_____ P35. This physician attends to his patient's concerns over shame and humiliation.

_____ P36. This physician elicits the perspective of a patient.
_____ P37. This physician listens actively to his patient.
_____ P38. This physician tries to understand a patient's experiences with his/her illness.
_____ P39. This physicians tries to reflect his patient's feelings.
_____ P40. This physician tries to legitimize his patient's feelings.
_____ P41. This physician tries to establish a partnership with his patient.

(Satisfaction: Sources: Cronin & Taylor, 1992; Garbarino & Johnson, 1999; Oliver, 1997)

	Very Unsatisfied						Very Satisfied
01. My feelings towards this physician's services can best be described as:	1	2	3	4	5	6	7
02. My feelings towards how this physician delivered his service to me can best be described as:	1	2	3	4	5	6	7
03. My feelings towards this physician's proposed diagnosis and treatment can best be described as:	1	2	3	4	5	6	7
04. My feelings towards the way this physician related to me emotionally was:	1	2	3	4	5	6	7

(Behavioral Intention; Source: Cronin & Taylor, 1992; Swinyard, 1993; Woodside et al., 1989)

	Very Unlikely						Very Likely
05. How likely are you to return to this doctor.	1	2	3	4	5	6	7
06. How likely are you to spend more time with this doctor.	1	2	3	4	5	6	7
07. How likely are you to make another appointment with this doctor.	1	2	3	4	5	6	7
08. How likely are you to respect the next appointment he gives you.	1	2	3	4	5	6	7

(Causal Dimension Scale; Source: Russell, 1982)

Instructions: Think about the reasons why the physician displayed the emotions he did. The items below reflect feelings one might have about the cause(s) of the physician's emotional displays. Circle the number that best reflects your feelings toward the cause(s).

Reflects an aspect of himself	1 2 3 4 5	Reflects an aspect of the situation
Are inside of him	1 2 3 4 5	Is outside of him
Is something about him	1 2 3 4 5	Is something about others
Permanent	1 2 3 4 5	Temporary
Stable over time	1 2 3 4 5	Variable over time
Unchanging	1 2 3 4 5	Changeable

Controllable by him	1 2 3 4 5	Uncontrollable by him
Intended by him	1 2 3 4 5	Unintended by him
He is responsible	1 2 3 4 5	He is not responsible

DEMOGRAPHICS

Are you _____ Male _____ Female

Are you
_____ Single
_____ Married or Living together
_____ Separated or Divorced
_____ Widowed

Please indicate your age group:

_____ Under 18	_____ 25-29	_____ 50-59
_____ 18-21	_____ 30-39	_____ 60-69
_____ 22-24	_____ 40-49	_____ 70 and over

Under which of the following conditions do you live:

_____ Currently living at home with parents.
_____ Living temporarily away from home due to studies (e.g., university residence).
_____ Living permanently in own home or apartment.

Please indicate your total family gross income bracket:

_____ Under $20,000	_____ $40,000 to $49,999	_____ $70,000 and over
_____ $20,000 to $29,999	_____ $50,000 to $59,999	
_____ $30,000 to $39,999	_____ $60,000 to $69,999	

Please indicate your total personal gross income bracket:

_____ Under $20,000	_____ $40,000 to $49,999	_____ $70,000 and over
_____ $20,000 to $29,999	_____ $50,000 to $59,999	
_____ $30,000 to $39,999	_____ $60,000 to $69,999	

Please indicate the highest level of education you have attained:

___ Elementary school
___ High school
___ CEGEP, community college, or technical school
___ Undergraduate university degree
___ Graduate university degree

Are you a Canadian citizen? ____Yes ____No

If 'No', please indicate your citizenship: _____

How many years have you lived in Canada? _____

Please state your occupation: _____

What is your religious affiliation?

____ Catholic	____ Greek Orthodox	____ Protestant
____ Jewish	____ Muslim	____ Hindu
____ None	____ Other; specify: _____	

	Not difficult at all									**Extremely difficult**
How difficult was it for you to understand the content of this questionnaire:	1	2	3	4	5	6	7	8	9	10
How difficult was it for you to properly respond to this questionnaire	1	2	3	4	5	6	7	8	9	10

Did you understand all the statements you answered?	_____YES	_____NO
Did you understand the instructions provided for each section?	_____YES	_____NO
Was the language of the questionnaire a problem for you?	_____YES	_____NO
Would you have preferred a French version of this questionnaire?	_____YES	_____NO

We would now like to know which language(s) you have become familiar with. Place a checkmark next to the answer which best describes the language you consider to be your first, that which you consider to be your second, and perhaps that which you consider to be your third. If it is not English or French, please specify the language.

What do you consider your first language:

___English ___ French ___ Other; specify: _____

What do you consider your second language:

___None ___English ___ French ___ Other; specify: _____

What do you consider your third language:

___None ___English ___ French ___ Other; specify: _____

Please place a checkmark to indicate in which language you completed or are completing the following studies:

01) Elementary school ____English ____ French
____ Other; specify: _____

02) High school ____English ____ French
____ Other; specify: _____

03) CEGEP OR College OR technical school
____English ____ French
____ Other; specify: _____

04) University ____English ____ French
____ Other; specify: _____

WE THANK YOU AGAIN FOR YOUR COOPERATION AND PARTICIPATION.